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CHA

September 26, 2013

RECEIVED
SEP 30 2013
DEQ - BRRO

Ms. Becky L. France
Environmental Engineer Senior
Blue Ridge Regional Office
Virginia Department of Environmental Quality
3019 Peters Creek Road
Roanoke, VA 24019

Re: Western Virginia Water Authority Water Pollution Control Plant VPDES Permit Reissuance Application Amendment 3, Additional Outfall 009 Oil and Grease Data, VPDES Permit No. VA0025020; CHA Project Number 25154

Dear Ms. France:

Enclosed is a copy of the lab report for an additional Oil and Grease sample collected at Outfall 009. This sample was collected on September 20, 2013 during a qualifying precipitation event. In addition, we have enclosed a revised page of the Form 2F to include this data. As always, please do not hesitate to contact Scott Shirley at (540) 853-1283 or me should you have any questions or require any additional information.

Sincerely,

R Lawrence Hoffman

R. Lawrence Hoffman
Vice President

RLH/egl
Enclosures
cc: S. Scott Shirley, Director of Wastewater Operations, Western Virginia Water Authority (w/encl.)
Janis Richardson, Environmental Programs Coordinator, Western Virginia Water Authority (w/o encl.)
Marty Sensabaugh, Wastewater Operation Manager, Western Virginia Water Authority (w/o encl.)

1901 Innovation Drive, Suite 2100, Blacksburg, VA 24060
T 540.552.5548 o F 540.552.5577 o www.chacompanies.com

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August 23, 2013

Ms. Becky L. France
Environmental Engineer Senior
Blue Ridge Regional Office
Virginia Department of Environmental Quality
3019 Peters Creek Road
Roanoke, VA 24019

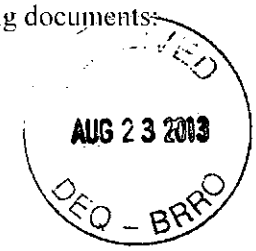
HAND DELIVERED

Re: Western Virginia Water Authority Water Pollution Control Plant VPDES Permit Reissuance Application, VPDES Permit No. VA0025020; CHA Project Number 25154

Dear Ms. France:

Enclosed is the original signed Virginia Pollutant Discharge Elimination System (VPDES) permit reissuance application for the Western Virginia Water Authority Water Pollution Control Plant. Also enclosed is a CD that contains the pdf versions of each of the application files and we will provide by e-mail information for downloading these files through our ftp site. This application is submitted by CHA Consulting Inc. on behalf of the Western Virginia Water Authority and includes the following documents:

1. EPA Form 2A;
2. DEQ Application Addendum;
3. EPA Form 2F;
4. VPDES Sewage Sludge Permit Application Form; and
5. Public Notice Billing Information Form.



The application also includes copies of the Outfall 001 effluent analyses laboratory reports used to prepare the Form 2A application and a copy of the Outfall 009 storm water analysis laboratory report used to prepare the Form 2F application.

The Form 2F application includes storm water data for Outfall 009. Monitoring data is not provided for Outfalls 008 and 011. Outfall 008 is currently disconnected due to construction of the new chlorine contact facility within the drainage basin. This outfall is expected be out of service for approximately two years. Outfall 011 has not discharged during the current permit term.

As we discussed during the August 12, 2013 pre-application meeting and site walkover, we plan to provide additional chronic toxicity testing data to support the reasonable potential evaluation for whole effluent toxicity. The data for two additional *Ceriodaphnia* chronic tests will be provided in the next four weeks.

As observed during the site walkover, the Authority is currently in the process of making improvements to the chlorine contact and the BAF systems to provide additional treatment capacity for wet weather flow events. These improvements, along with the ongoing collection system improvements, represent a significant investment by the Authority to reduce inflow and infiltration and provide high levels of treatment during wet weather flow events.

The application documents are submitted with the following requests:

1. Flow Tiers: The Authority requests that the reissued permit include the 55 MGD and 62 MGD tiers included in the current permit.

2. Flow-based Wet Weather Loading Limits: In recognition of the wet weather treatment improvements and the associated commitment by the Authority to treat additional wet weather flows, the Authority requests that the reissued permit include flow-based wet weather loading limits for conventional pollutants at levels greater than currently used for the standard 55 MGD and 62 MGD design flows. We request that these loading tiers reflect the enhanced wet weather treatment capacity that will be available upon completion of the ongoing chlorination and BAF system improvements.

3. Biosolids Demonstration Area: As part of its ongoing public education commitment, the Authority requests DEQ approval through the VPDES permit to develop a small biosolids application demonstration area at the water pollution control plant. The facility currently has a small fish habitat in front of the Administration Building that is fed by treated effluent; this area is included in plant tours to demonstrate the high degree of treatment provided by the facility. The biosolids demonstration area is intended to depict the benefits of biosolids applications. As conceived, the area will be approximately 30' x 30' and will be located adjacent to, and on the east side of the Administration Building.

We appreciate your sincere consideration of these requests and we remain available to discuss these requests or any information included in the permit application at your convenience. As always, please do not hesitate to contact Scott Shirley at (540) 853-1283 or me should you have any questions or require any additional information.

Sincerely,

R Lawrence Hoffman

R. Lawrence Hoffman
Vice President

RLH/egl
Enclosures
cc: Michael McEvoy, Executive Director-Wastewater Services, Western Virginia Water Authority (w/encl.)
S. Scott Shirley, Director of Wastewater Operations (w/encl.)
Janis Richardson, Environmental Programs Coordinator, Western Virginia Water Authority (w/o encl.)
Marty Sensabaugh, Wastewater Operation Manager, Western Virginia Water Authority (w/o encl.)

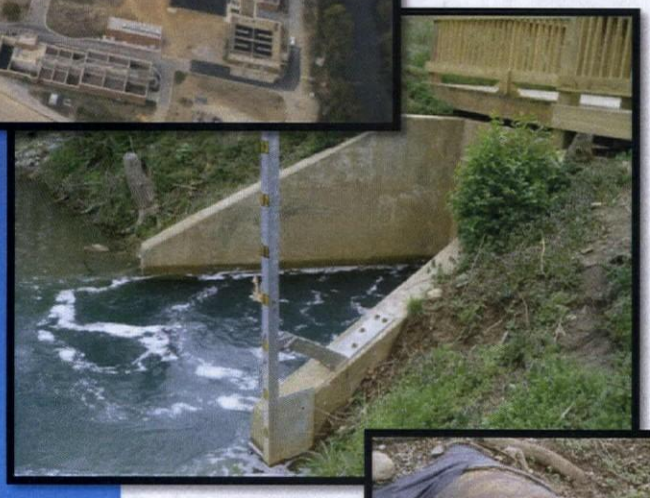
CHA

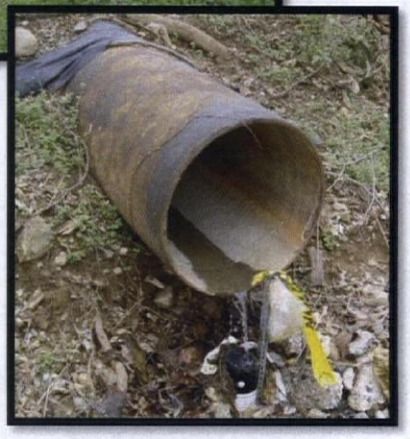
Reissuance Application

VPDES Permit No. VA0025020

Western Virginia Water Authority
Water Pollution Control Plant

CHA Project Number: 25154





Prepared for:

Western Virginia Water Authority
1502 Brownlee Ave SE
Roanoke, VA 24014

Prepared by:

1901 Innovation Drive
Suite 2100
Blacksburg, VA, 24060
Phone: (540) 552-5548
Fax: (540) 552-5577

August 2013

FACILITY NAME AND PERMIT NUMBER:
Western Virginia Water Authority Water Pollution Control Plant; VA0025020

ENTERED

Form Approved 1/14/99

OMB Number 2040-0086

FORM 2A NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some appicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

A. **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.

B. **Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.

C. **Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

D. **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to provide the information.

E. **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to submit results of toxicity testing.

F. **Industrial Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:

1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
2. Any other industrial user that:
   a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions): or
   b. Contributes a process wastewater that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
   c. Is designed as an SIU by the control authority.

G. **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

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ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1 Facilty Information.

Facilty Name	Western Virginia Water Authority Water Pollution Control Plant
Mailing Address	1502 Brownlee Avenue, S.E.
	Roanoke, VA 24014
Contact Person	Scott Shirley
Title	Director of Wastewater Operations
Telephone Number	(540) 853-1283
Facilty Address (not P.O. Box)	Same as mailing address

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant Name	
Mailing Address	
Contact Person	
Title	
Telephone number	

Is the applicant the owner or operator (or both) of the treatment works?

X owner X operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

X facility _____ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES	VA0025020	PSD	
UIC		Other	Air Emissions Registration No. 21529
RCRA		Other	

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
City of Roanoke	~92,600	Separate	Municipal
Roanoke County	~90,400	Separate	Municipal
City of Salem	~25,200	Separate	Municipal
Botetourt County	~32,000	Separate	Municipal
Town of Vinton	~7,900	Separate	Municipal
Total population served	~248,100		

The type of collection system reported for each jurisdiction has been supplied to the Western Virginia Water Authority WPCP for the purpose of completing this application; this information has not been field verified by personnel completing this application.

A.5. Indian Country

a. Is the treatment works located in Indian Country?

___ Yes _X_ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

___ Yes _X_ No

A.6 Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years Each year's data must be based on a 12-month time period with the 12th month of "this year" ocurring no more than three months prior to this application submittal.

a. Design flow rate 55 mgd

	Two Years Ago (7/10-6/11)	Last Year (7/11-6/12)	This Year (7/12-6/13)	
b. Annual average daily flow rate	37.08	36.78	35.44	mgd
c. Maximum daily flow rate	123.44	127.27	109.27	mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each. **The WVWA has established a regular systematic effort to identify and eliminate any illicit storm system connections to the sanitary sewer.**

X	Separate sanitary sewer	100 %
___	Combined storm and sanitary sewer	0 %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to the waters of the U.S.? X Yes ___ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i.	Discharges of treated effluent	1
ii.	Discharges of untreated or partially treated effluent	1
iii.	Combined sewer overflow points	0
iv.	Constructed emergency overflows (prior to the headworks)	1
v.	Other ___	N/A

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? ___ Yes _X_ No

If yes, provide the following for each surface impoundment:

Location: ___

Annual average daily volume discharged to surface impoundment(s) ___ mgd

Is discharge ___ continuous or ___ intermittent?

c. Does the treatment works land-apply treated wastewater? ___ Yes _X_ No

If yes, provide the following for each land application site:

Location: ___

Annual average daily volume applied to site: ___ mgd

Is land application ___ continuous or ___ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? ___ Yes _X_ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by party other than the applicant, provide:

Transporter Name

Mailing Address

Contact Person

Title

Telephone Number

For each treatment works that receives this discharge, provide the following:

Name

Mailing Address

Contact Person

Title

Telephone Number

If known, provide the NPDES permit number of the treatment works that receives this discharge.

Provide the average daily flow rate from the treatment works into the receiving facility. mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? Yes X No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method:

Is disposal through this method continuous or intermittent?

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a**, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9 Description of Outfall.

a. Outfall number **001**

b. Location **Roanoke** (City or town, if applicable) **24014** (Zip Code)

Roanoke (County) **Virginia** (State)

37° 15' 50" (Latitude) **79° 54' 35"** (Longitude)

c. Distance from shore (if applicable) **NA** ft.

d. Depth below surface (if applicable) **NA** ft.

e. Average daily flow rate **39.88** mgd **(average from 3/09-6/13)**

f. Does this outfall have either an intermittent or periodic discharge? ____ Yes **X** No (go to A.9.g)

Number of times per year discharge occurs: ____

Average duration of each discharge: ____

Average flow per discharge: ____ mgd

Months in which discharge occurs: ____

g. Is outfall equipped with a diffuser? ____ Yes **X** No

A.10. Description of Receiving Waters

a. Name of receiving water **Roanoke River**

b. Name of watershed (if known) **Upper Roanoke Watershed**

United States Soil Conservation Service 14-digit watershed code (if known): ____

c. Name of State Management/River Basin (if known): ____

United States Geological Survey 8-digit hydrological cataloging unit code (if known): **3010101**

d. Critical low flow of receiving stream (if applicable): **From 2013 DEQ Flow Evaluation**

acute **35** cfs (1Q10) chronic **40** cfs (7Q10)

e. Total hardness of receiving stream at critical low flow (if applicable): **Not Available** mg/l of $CaCO_3$

A.11. Description of Treatment

a. What levels of treatment are provided? Check all that apply.

____ Primary ____ Secondary

X Advanced ____ Other. Describe: ____

b. Indicate the following removal rates (as applicable)

Design BOD_5 removal or Design $CBOD_5$ removal	97 %
Design SS removal	97 %
Design P removal	96 %
Design N removal (TKN)	91 %
Other ____ Removal rates estimated based on design influent strength and VPDES permit limits	%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Chlorination

If disinfection is by chlorination, is dechlorination used for this outfall? X Yes ____ No

d. Does the treatment plant have post aeration? X Yes ____ No

A.12.

Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001 (from 3/09-6/13)

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.8	s.u.			~1,550
pH (Maximum)	7.3	s.u.			~1,550
Flow Rate	137.39	MGD	39.88	MGD	Continuous
Temerature (Winter) (Jan-Mar, 2010-2013)	16.9	°F	13.3	°F	~360
Temerature (Summer) (Jul-Sep, 2009-2012)	25.4	°F	23.3	°F	~360

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
		Conc.	Units	Conc.	Units	Number of Samples		
BIOCHEMICAL OXYGEN	BOD-5	6	mg/L	2.5	mg/L	~1,550	EPA 405.1	5 mg/L
Demand (Report one)	CBOD-5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FECAL COLIFORM (E. coli)		4	MPN/100 mls	1.147	MPN/100 mls	~665	SM 9221 C, E	2 MPN/100 mLs
TOTAL SUSPENDED SOLIDS (TSS)		5.8	mg/L	<1	mg/L	~1,550	EPA 160.2	1 mg/L

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a**, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9 Description of Outfall.

a. Outfall number **003** **EQ Basin Overflow**

b. Location

Roanoke (City or town, if applicable)	**24014** (Zip Code)
Roanoke (County)	**Virginia** (State)
37° 15' 58" (Latitude)	**79° 54' 32"** (Longitude)

c. Distance from shore (if applicable) **NA** ft.

d. Depth below surface (if applicable) **NA** ft.

e. Average daily flow rate **0** mgd

f. Does this outfall have either an intermittent or periodic discharge? **X** Yes ____ No (go to A.9.g)

Number of times per year discharge occurs: **Emergency Bypass Only (0 - 3 times/year from 11/09 - 7/13)**

Average duration of each discharge: **Varies**

Average flow per discharge: **13.69 (from 11/09 - 7/13)** mgd

Months in which discharge occurs: **Varies: Usually late fall to early spring**

g. Is outfall equipped with a diffuser? ____ Yes **X** No

A.10. Description of Receiving Waters

a. Name of receiving water **Roanoke River**

b. Name of watershed (if known) **Upper Roanoke Watershed**

United States Soil Conservation Service 14-digit wastershed code (if known): ____

c. Name of State Management/River Basin (if known): ____

United States Geological Survey 8-digit hydrological cataloging unit code (if known): **03010101**

d. Critical low flow of receiving stream (if applicable): **From 2013 DEQ Flow Evaluation**

acute **35** cfs (1Q10) chronic **40** cfs (7Q10)

e. Total hardness of receiving stream at critical low flow (if applicable): **Not Available** mg/l of $CaCO_3$

A.11. Description of Treatment

a. What levels of treatment are provided? Check all that apply.

____ Primary ____ Secondary

____ Advanced X Other. Describe: **Sedimentation Tank Equivalent to Primary Treatment**

b. Indicate the following removal rates (as applicable)

Design BOD_5 removal or Design $CBOD_5$ removal	40	%
Design SS removal	25	%
Design P removal	0	%
Design N removal	0	%
Other ____		%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Chlorination

If disinfection is by chlorination, is dechlorination used for this outfall? ____ Yes X No

d. Does the treatment plant have post aeration? ____ Yes X No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 003

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.0	s.u.			
pH (Maximum)	7.6	s.u.			
Flow Rate	71.58	MGD	13.69	MGD	17
Temerature (Winter)	N/A	N/A	N/A	N/A	N/A
Temerature (Summer)	N/A	N/A	N/A	N/A	N/A

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
		Conc.	Units	Conc.	Units	Number of Samples		
BIOCHEMICAL OXYGEN	BOD-5	32	mg/L	17.7	mg/L	17	SM5210 B	5 mg/L
Demand (Report one)	CBOD-5	N/A	N/A	N/A	N/A	17	N/A	N/A
FECAL COLIFORM		1,600	MPN	537	MPN	16	SM9221 D	2 MPN/100 mls
TOTAL SUSPENDED SOLIDS (TSS)		50	mg/L	33.9	mg/L	17	SM2540 D	1 mg/L

END OF PART A.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a**, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9 Description of Outfall.

a. Outfall number: 010 Influent Pump Station Bypass

b. Location

Roanoke (City or town, if applicable) 24014 (Zip Code)

Roanoke (County) Virginia (State)

37° 15' 56" (Latitude) 79° 54' 56" (Longitude)

c. Distance from shore (if applicable): NA ft.

d. Depth below surface (if applicable): NA ft.

e. Average daily flow rate: 0 mgd

f. Does this outfall have either an intermittent or periodic discharge? X Yes ____ No (go to A.9.g)

Number of times per year discharge occurs: Emergency Bypass Only

Average duration of each discharge: Varies

Average flow per discharge: Varies mgd

Months in which discharge occurs: Varies: Dependent upon wet weather events

g. Is outfall equipped with a diffuser? ____ Yes X No

A.10. Description of Receiving Waters

a. Name of receiving water: Roanoke River

b. Name of watershed (if known): Upper Roanoke Watershed

United States Soil Conservation Service 14-digit wastershed code (if known): ____

c. Name of State Management/River Basin (if known): ____

United States Geological Survey 8-digit hydrological cataloging unit code (if known): 03010101

d. Critical low flow of receiving stream (if applicable): From 2013 DEQ Flow Evaluation

acute 35 cfs (1Q10) chronic 40 cfs (7Q10)

e. Total hardness of receiving stream at critical low flow (if applicable): Not Available mg/l of $CaCO_3$

A.11. Description of Treatment

a. What levels of treatment are provided? Check all that apply.

_____ Primary _____ Secondary

_____ Advanced _____ Other. Describe: No treatment

b. Indicate the following removal rates (as applicable)

Design BOD_5 removal or Design $CBOD_5$ removal	0	%
Design SS removal	0	%
Design P removal	0	%
Design N removal	0	%
Other _____		%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

None

If disinfection is by chlorination, is dechlorination used for this outfall? _____ Yes X No

d. Does the treatment plant have post aeration? _____ Yes X No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 010

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	N/A	s.u.			
pH (Maximum)	N/A	s.u.			
Flow Rate	N/A	N/A	N/A	N/A	N/A
Temerature (Winter)	N/A	N/A	N/A	N/A	N/A
Temerature (Summer)	N/A	N/A	N/A	N/A	N/A

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
		Conc.	Units	Conc.	Units	Number of Samples		
BIOCHEMICAL OXYGEN	BOD-5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Demand (Report one)	CBOD-5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FECAL COLIFORM		N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL SUSPENDED SOLIDS (TSS)		N/A	N/A	N/A	N/A	N/A	N/A	N/A

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

3,500,000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

Consent order with DEQ WCRO is in effect and defines specific actions.

B.2.

Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.) **See Attached Site Location Map and Facility Layout Map in Attachment B.2.**

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Well, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

See Attached Process Flow Diagram and Process Description in Attachment B.3

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor?

___ Yes X No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name:

Mailing Address:

Telephone Number:

Responsibilities of Contractor:

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

Outfall 001

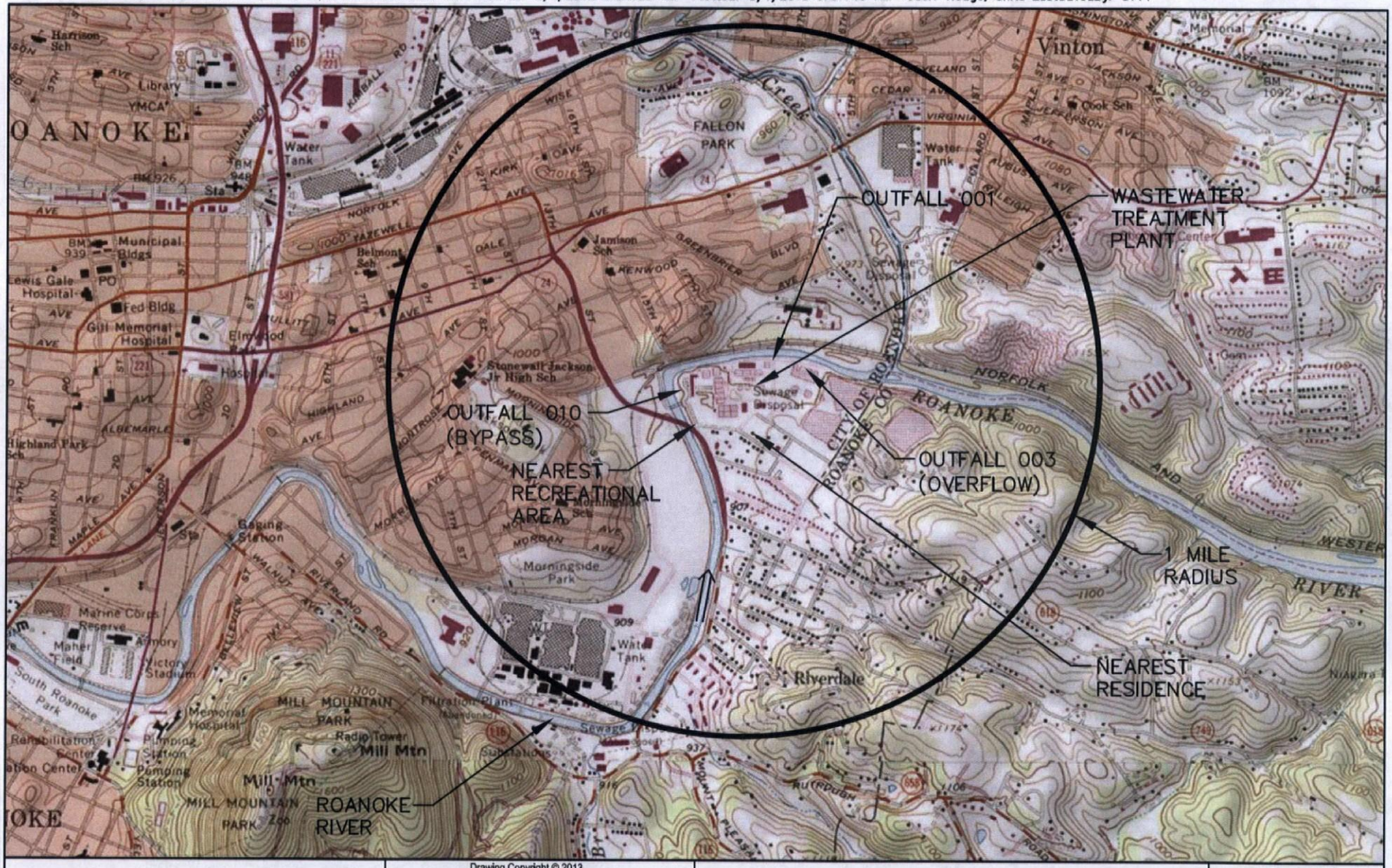
b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

___ Yes X No

ATTACHMENT B.2

SITE LOCATION MAP AND FACILITY LAYOUT MAP

File: V:\PROJECTS\BVA\25154\CADD\FIGURES\SITE LOCATION MAP.DWG Saved: 8/1/2013 9:04:23 AM Plotted: 8/1/2013 9:07:46 AM User: Hodge, Chris LastSavedBy: 3771



0 2000 4000
Scale in feet

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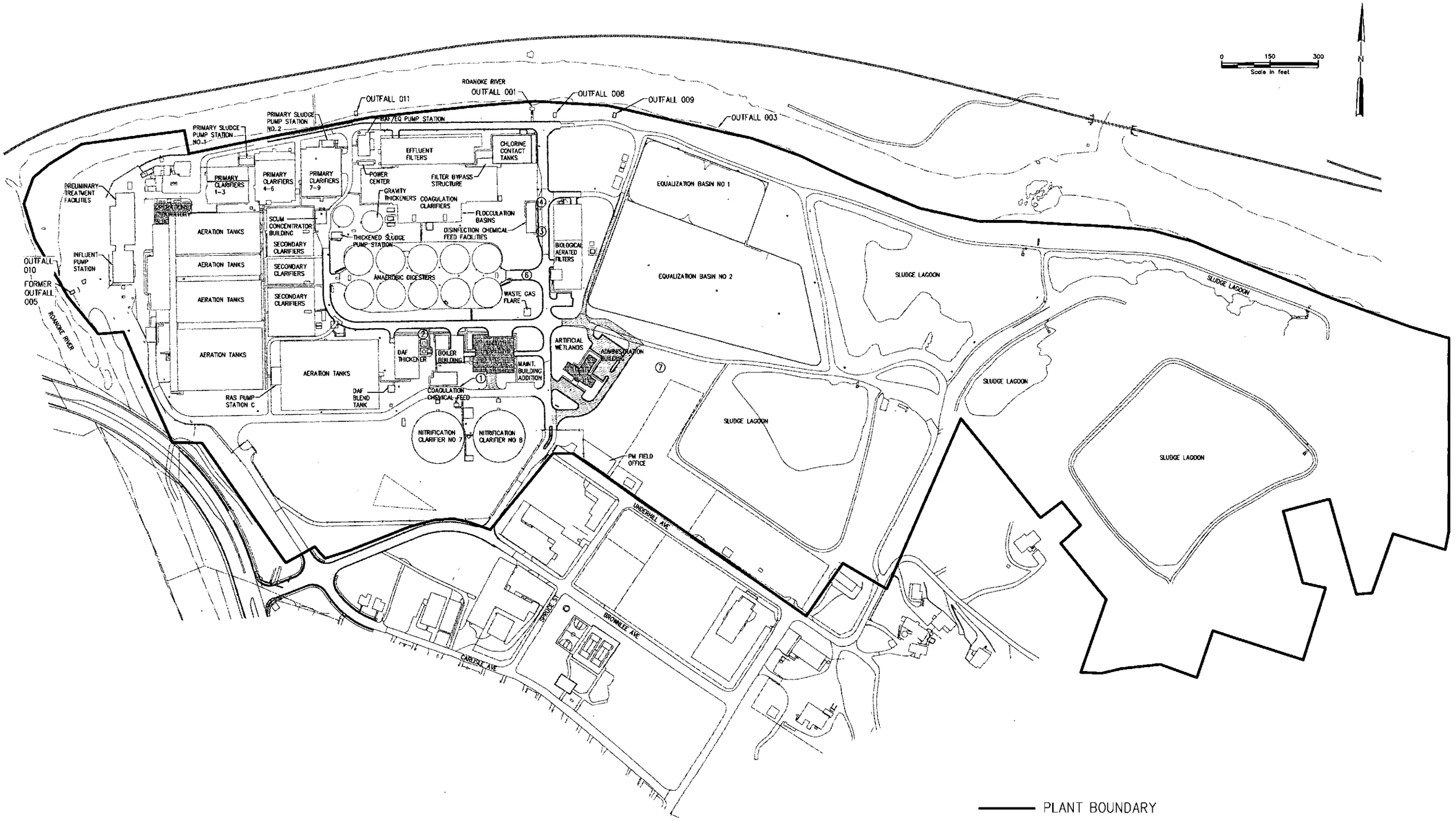
WESTERN VIRGINIA WATER AUTHORITY
WATER POLLUTION CONTROL PLANT

SITE LOCATION MAP

PROJECT NO. 25154

DATE: 8/2013



PLANT BOUNDARY

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WESTERN VIRGINIA WATER AUTHORITY
WATER POLLUTION CONTROL PLANT

FACILITY LAYOUT MAP

PROJECT NO. 25154

DATE: 8/2013

ATTACHMENT B.3

DESCRIPTION OF WASTEWATER TREATMENT FACILITIES

WESTERN VIRGINIA WATER AUTHORITY
VPDES PERMIT VA0025020
FORM 2A ATTACHMENT B.3
Description of Wastewater Treatment Facilities

TREATMENT PROCESS OVERVIEW

Preliminary wastewater treatment facilities consist of screening and grit removal. Primary treatment facilities consist of nine (9) rectangular primary settling tanks with chain and flight sludge and scum collection and a sludge and scum pumping station. Secondary treatment facilities include sixteen (16) aeration basins and 18 secondary clarifiers, and return sludge and waste sludge pumping stations. The tertiary treatment system includes a rapid mix tank for chemical addition, four (4) flocculation basins, four (4) coagulation settling basins, and ten (10) effluent filters. The disinfection facilities include a liquid chlorination system, chlorine contact tanks, post aeration, and dechlorination. The plant discharges treated effluent to the Roanoke River under VPDES Permit No. VA 0025020.

PRELIMINARY TREATMENT

Screens and Grit Removal
Flow from the Roanoke River Interceptor and the Tinker Creek Interceptor flow into the influent pump station after the addition of ferric chloride. It is then channeled into the screenings channels and divided between three (3) grit chambers (No. 1-3). High wet weather flows in excess of influent pump station capacity maybe discharged to the EQ basin for storage. Flow beyond EQ basin storage capacity is discharged through Outfall 003. Discharge through Outfall 010 (influent pump station bypass) would only occur during a complete plant shut down; this is expected to occur only during a catastrophic flood event and would be implemented to prevent damage to property and danger to life in the collection system.

PRIMARY TREATMENT

There are nine (9) rectangular primary clarifier basins; flow from each of the three grit chambers can be channeled to primary clarifiers Nos. 1-3, Nos. 4-6 or Nos. 7-9. Primary clarifiers separate the heavier organic suspended and inert solids from the flow stream. Chain and flight-type collector mechanisms convey settled organic matter to the sludge hopper for removal.

SECONDARY TREATMENT

Secondary treatment facilities include activated sludge aeration basins, clarifiers, and return activated sludge/waste activated sludge (RAS/WAS) pumping systems.

Activated Sludge:

The existing biological treatment process is a single-stage activated sludge system. The process is primarily for the purpose of carbonaceous (BOD) removal. It is then distributed between sixteen (16) single-pass, plug-flow activated sludge basins with Sanitaire® disk aeration diffusers for dissolved organics (BOD) removal. For the most part, primary effluent from Primary Clarifiers 1-3 flows to Aeration Basins 1-6; primary effluent from Primary Clarifiers 4-6 flows to Aeration Basins 7-10; and primary effluent from Primary Clarifiers 7-9 flows to Aeration Basins 11-16. There is a pipe connection that attempts to distribute these flows, but the flow isolation

described above is largely maintained. In addition, Aeration Basins 5 and 6 generally send effluent to Final Stage Clarifiers 5 and 6, as pipe interconnections do not equally mix and distribute flow to the clarifiers. Return sludge is introduced at the head of the basins from a main header through valves with individual flow meters.

Secondary Clarifiers:

There are sixteen (16) square secondary clarifiers with circular collection mechanisms and two (2) circular secondary clarifiers. Mixed liquor from the activated sludge basins is distributed to the clarifiers from a central channel with sluice gates. Return sludge from Clarifiers 11-16 flows through a telescoping valve into a suction line common to groups of clarifiers while the return sludge from the remaining clarifiers is pumped to the aeration basins. While the system is designed for flexibility for transferring mixed liquor and return sludge to amongst several aeration basins and clarifiers, it is typically operated a three train system. Return sludge from Clarifiers 1-6 is pumped separately to Aeration Basins 1-6; return sludge from Clarifiers 7-10 are pumped to Aeration Basins 1-6; return sludge from Clarifiers 11-16 is conveyed to Aeration Basins 11-16, and return sludge from Clarifiers 17 and 18 is pumped to Aeration Basins 7-10. Secondary clarifiers 1-10 have individual return sludge pumps located at each tank. The return sludge pumps for secondary clarifiers 11-16 are located in the Train C pump house and return sludge pumps for secondary clarifiers 17 and 18 are located at the RAS Pump Station B.

TERTIARY TREATMENT

Tertiary treatment consists of chemical addition, flocculation, coagulation/settling, filtration, and disinfection. Each of these is discussed below.

Flocculation/Coagulation:

Clarified wastewater from the secondary clarifiers normally flows to a pretreatment system prior to effluent filtration. The pretreatment system consists of two rapid mix tanks (where ferric chloride and polymer are added to precipitate additional phosphorus), four flocculation tanks with vertical mixers and four square coagulation settling basins. The coagulation basins have circular collection mechanisms. Sludge is collected through telescoping valves and can be pumped to either the gravity thickeners or dissolved air flotation thickeners (DAF).

Effluent Filters:

There are ten (10) mono-media effluent sand filters. All of the filters have an air scour backwash system.

Disinfection:

Tertiary effluent is disinfected with liquid sodium hypochlorite in two parallel chlorine contact tanks. The disinfected effluent undergoes diffused aeration and is then dechlorinated using sodium bisulfite prior to discharger to the Roanoke River.

SOLIDS HANDLING

Solids produced by wastewater treatment processes include:

- Screenings/grit
- Primary sludge and scum
- Waste activated sludge
- Coagulation sludge and scum
- BAF and effluent filter backwash solids

In general, solids removed from the wastewater treatment processes are first thickened, then stabilized, and then stored in sludge lagoons prior to being land applied. Specific solids handling facilities are described below and are shown in the Process Flow Diagram-Solids Handling.

Thickening:

Gravity Thickening-Primary sludge collected in primary clarifier sludge hoppers flows to the primary sludge pumping stations wetwell/pump suction. Eight primary sludge pumps are available to convey these solids to two (2) gravity thickeners. Thickeners can be operated in a batch mode with solids pumped individually to either thickener, or continuously in parallel to both thickeners. Coagulated sludge can also be thickened in the gravity thickeners along with primary sludge. Thickened sludge is collected and scraped to the sludge hopper, then pumped to the anaerobic digesters. Thickened sludge pumps are located in a building adjacent to the gravity thickeners. Thickener overflow is returned to the Tinker Creek Interceptor and back to the head of the plant.

Dissolved Air Floatation Thickening-A portion of the solids removed from secondary clarifiers as waste activated sludge are pumped from the return sludge header to the blend tank and then to the DAFs. Coagulated sludge can be discharged to, and thickened in, the DAFs. Thickened sludge and settled solids are removed from the DAFs and pumped to the anaerobic digesters. Subnatant can be used to supply water to the AEP pumps or is returned to the Tinker Creek Interceptor and to the head of the plant.

Stabilization:

Thickened solids are stabilized in the anaerobic digestion process to produce a Class "B" biosolids in accordance with 40 CFR Part 503 regulations. There are seven (7) primary sludge digesters, three (3) secondary digesters, and associated pumps, piping, mixing, and heating equipment.

Storage and Disposal:

Digested biosolids are removed from the secondary digesters and pumped to one of five (5) storage lagoons. When conditions are suitable, solids are removed from the lagoons and hauled to and applied on farmland permitted for beneficial reuse. The Western Virginia Water Authority contracts services for removing, hauling and applying biosolids to farmland with private contractors.

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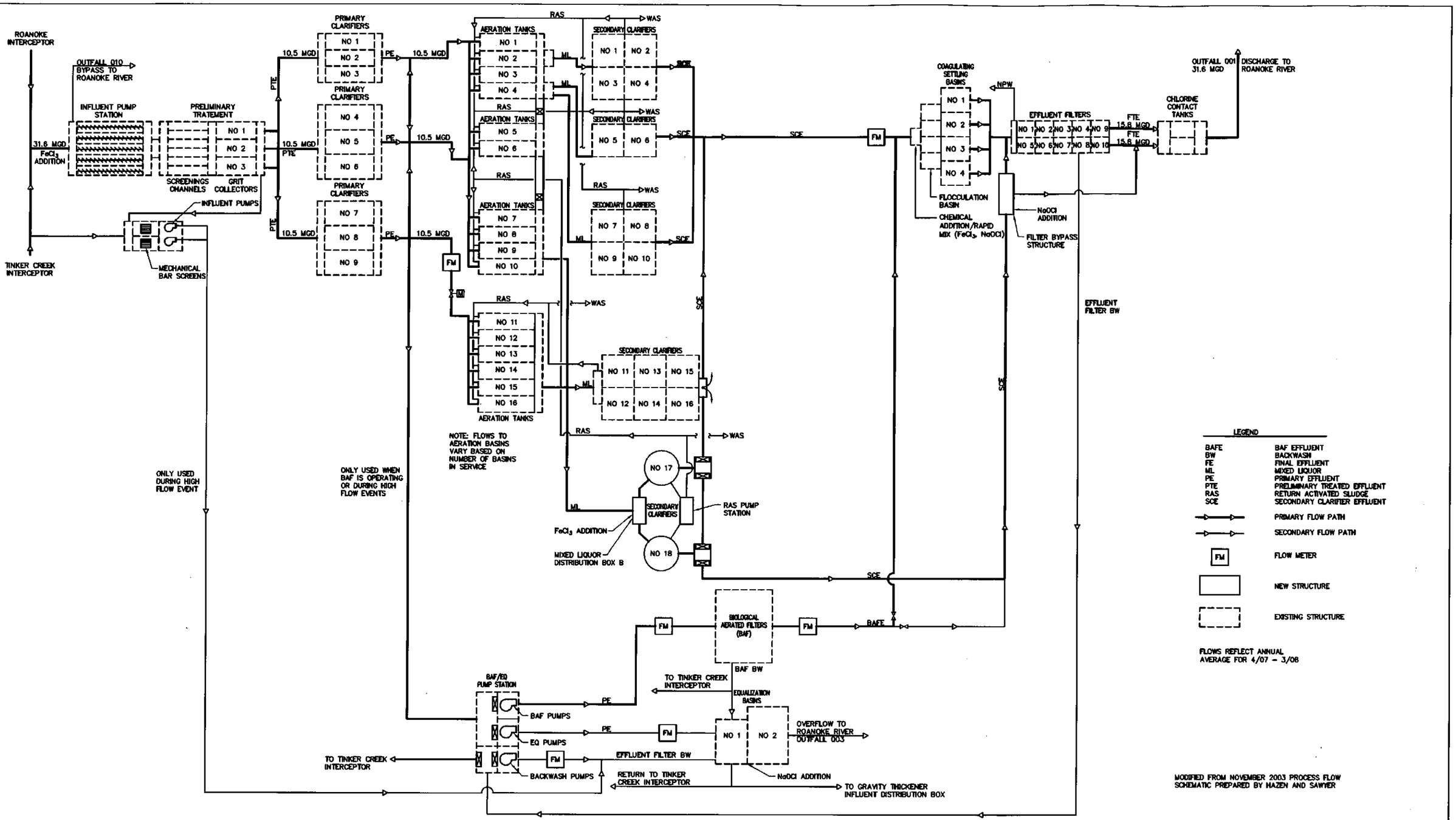
MAXIMUM WET WEATHER PEAK FLOW CAPACITY IMPROVEMENTS

Currently wet weather flows in excess of the WPCP's current treatment capacity are conveyed to two large equalization basins. This wastewater is held until influent flows decrease at which time the wastewater held in the equalization basin is pumped to the WPCP for treatment. During periods of very high wet weather flows, wastewater in excess of the equalization basin capacity is discharged through Outfall 003. The level of treatment for the Outfall 003 discharges includes sedimentation equal to primary clarification and disinfection using chlorination.

The Authority is currently in the process of making significant improvements to the chlorine contact and the BAF systems to provide additional treatment capacity for peak wet weather flow events. These improvements represent a significant investment by the Authority to provide high levels of treatment during wet weather flow events.

The line diagram depicting the WPCP components and capacities with the planned system is attached. As depicted, the biological aerated filter (BAF) unit will provide biological treatment for an estimated 30 MGD, increasing the WPCP treatment capacity to approximately 140 MGD. The use of the improved BAF along with the expansion of the chorine contact basin will increase the WPCP hydraulic capacity to approximately 200 MGD.



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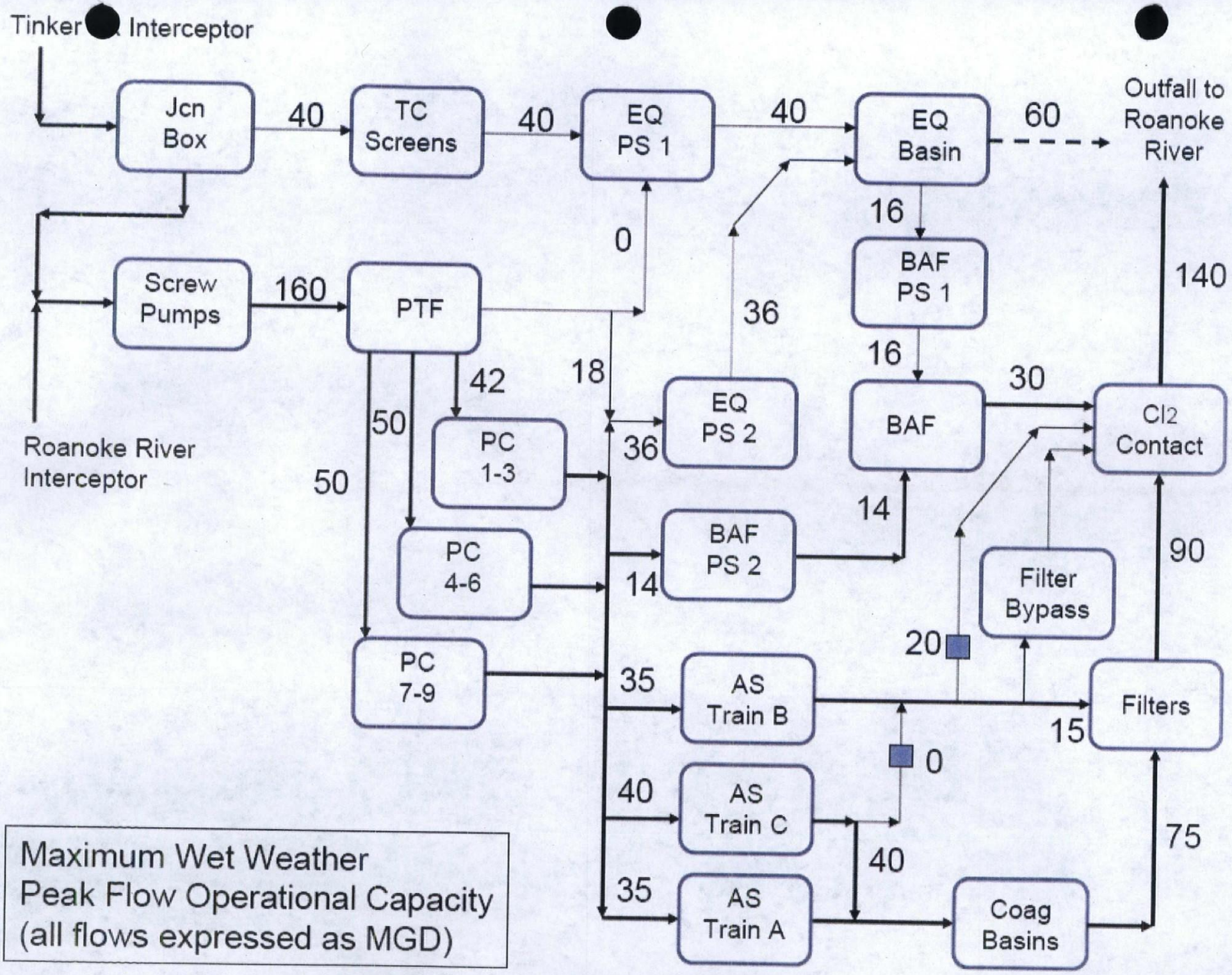
WESTERN VIRGINIA WATER AUTHORITY
WATER POLLUTION CONTROL PLANT
PROCESS FLOW DIAGRAM
LIQUID TRAIN

PROJECT NO. 25154

DATE: 8/2013


Tinker
Interceptor
Jcn Box
40
TC Screens
40
EQ PS 1
40
EQ Basin
60
Outfall to Roanoke River
16
BAF PS 1
16
BAF
30
Cl2 Contact
140
90
Filter Bypass
Filters
75
Coag Basins
40
AS Train A
35
AS Train C
40
0
AS Train B
35
15
20
PC 7-9
PC 4-6
14
BAF PS 2
14
PC 1-3
50
50
42
PTF
160
Screw Pumps
Roanoke River Interceptor
EQ PS 2
36
18
0
36
Maximum Wet Weather
Peak Flow Operational Capacity
(all flows expressed as MGD)

c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

Wet weather peak flow treatment improvements (underway), chlorination contact improvements (underway), digester improvements (not scheduled), future expansion to 62 MGD tier (not scheduled).

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM/DD/YYYY	Actual Completion MM/DD/YYYY
- Begin construction	___/___/___	___/___/___
- End construction	___/___/___	___/___/___
- Begin discharge	___/___/___	___/___/___
- Attain operational level	___/___/___	___/___/___

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? X Yes ____ No

Describe briefly: **For peak flow treatment and chlorination contact improvements**

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: **001 (Feb 09-Jun 13)**

***Laboratory Reporting Limit. MDL is included in the lab reports.**

****Dissolved Oxygen values based on Minimum Monthly Values report on DMRs**

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL *
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.											
AMMONIA (as N)	<0.1	mg/L	<52.0	kg/d	<0.1	mg/L	<15.1	kg/d	3	SM 4500NH3,F	0.1 mg/L
CHLORINE (TOTAL RESIDUAL, TRC)	<0.1	mg/L	<52.0	kg/d	<0.1	mg/L	<15.1	kg/d	~1,550	EPA 330.1	0.1 mg/L
DISSOLVED OXYGEN **	8.8	mg/L	4,580	kg/d	6	mg/L	9,035	kg/d	~1,550	EPA 360.1	1.0 mg/L
TOTAL KJELDAHL NITROGEN (TKN)	<1.0	mg/L	<520	kg/d	<1	mg/L	<151	kg/d	~1,550	SM 4500N,C	1 mg/L
NITRATE PLUS NITRITE NITROGEN	12.1	mg/L	6,290	kg/d	10.1	mg/L	1,520	kg/d	3	EPA 300.0	0.1 mg/L
OIL and GREASE	<5	mg/L	<2,610	kg/d	<5	mg/L	<755	kg/d	3	SM 5520B	5 mg/L
PHOSPHORUS (Total)	0.16	mg/L	83.2	kg/d	<0.06	mg/L	<9.06	kg/d	~1,550	EPA 365.3	0.05 mg/L
TOTAL DISSOLVED SOLIDS (TDS)	359	mg/L	187,000	kg/d	351	mg/L	53,000	kg/d	3	EPA 160.1	1 mg/L
OTHER	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

END OF PART B.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

X Basic Application Information packet

Supplemental Application Information packet

X Part D (Expanded Effluent Testing Data)

X Part E (Toxicity Testing: Biomonitoring Data)

X Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certifiy under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, inlcluding the possibility of fine and imprisonment for knowing violations.

Name and official title: Michael T. McEvoy, Executive Director, Wastewater Services

Signature: Michael T. McEvoy

Telephone number: (540) 853-1449

Date signed: Aug 21, 2013

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:

Western Virginia Water Authority Water Pollution Control Plant; VA0025020

Form Approved 1/14/99

OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

PQL

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL *
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY	<1	µg/L	<520	g/d	<1	µg/L	<151	g/d	3	EPA 200.7	1 µg/L
ARSENIC	<1	µg/L	<520	g/d	<1	µg/L	<151	g/d	3	EPA 200.7	1 µg/L
BERYLLIUM	<0.1	µg/L	<52	g/d	<0.1	µg/L	<15.1	g/d	3	EPA 200.7	0.1 µg/L
CADMIUM	<0.05	µg/L	<26	g/d	<0.05	µg/L	<7.5	g/d	3	EPA 200.7	0.05 µg/L
CHROMIUM	<1	µg/L	<520	g/d	<1	µg/L	<151	g/d	3	EPA 200.7	1 µg/L
COPPER 0.5	<0.5	µg/L	<260	g/d	<0.5	µg/L	<75	g/d	3	EPA 200.7	0.5 µg/L
LEAD	0.34	µg/L	180	g/d	<0.15	µg/L	<22.6	g/d	3	EPA 200.7	0.1 µg/L
MERCURY	<0.1	µg/L	<52	g/d	<0.1	µg/L	<15.1	g/d	3	EPA 245.1	0.1 µg/L
NICKEL 5	1.66	µg/L	863	g/d	<0.72	µg/L	<109	g/d	3	EPA 200.7	0.5 µg/L
SELENIUM	<0.5	µg/L	<26	g/d	<0.05	µg/L	<7.5	g/d	3	EPA 200.7	0.5 µg/L
SILVER 0.1	<0.1	µg/L	<52	g/d	<0.1	µg/L	<15.1	g/d	3	EPA 200.7	0.1 µg/L
THALLIUM	<0.1	µg/L	<52	g/d	<0.1	µg/L	<15.1	g/d	3	EPA 200.7	0.1 µg/L
ZINC 10	21.6	µg/L	11,200	g/d	<7.5	µg/L	1,130	g/d	3	EPA 200.7	1 µg/L
CYANIDE	<0.05	µg/L	<26	g/d	<0.05	µg/L	<7.5	g/d	4	EPA 335.4	0.05 µg/L
TOTAL PHENOLIC COMPOUNDS	<0.05	µg/L	<26	g/d	<0.05	µg/L	<7.5	g/d	4	EPA 420.1	0.05 µg/L
HARDNESS (AS $CaCO_3$)	192	mg/L	99,000	kg/d	190	mg/L	29,000	kg/d	3	EPA 130.2	1 mg/L

Use this space (or a separate sheet to provide information on other base-neutral compounds requested by the permit writer.

FACILITY NAME AND PERMIT NUMBER:

Western Virginia Water Authority Water Pollution Control Plant; VA0025020

Form Approved 1/14/99

OMB Number 2040-0086

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN	<10	µg/L	<5,200	g/d	<10	µg/L	<1,500	g/d	4	EPA 624	10 µg/L
ACRYLONITRILE	<10	µg/L	<5,200	g/d	<10	µg/L	<1,500	g/d	4	EPA 624	10 µg/L
BENZENE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
BROMOFORM	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
CARBON TETRACHLORIDE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
CHLOROBENZENE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
CHLORODIBROMO-METHANE	14.3	µg/L	7,440	g/d	6.6	µg/L	996	g/d	4	EPA 624	1 µg/L
CHLOROETHANE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
2-CHLORO-ETHYLVINYL ETHER	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	5 µg/L
CHLOROFORM	17.0	µg/L	8,840	g/d	14.0	µg/L	2,110	g/d	4	EPA 624	1 µg/L
DICHLOROBROMO-METHANE	2.7	µg/L	1,400	g/d	1.2	µg/L	180	g/d	4	EPA 624	1 µg/L
1,1-DICHLOROETHANE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
1,2-DICHLOROETHANE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
TRANS-1,2-DICHLORO-ETHYLENE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
1,1-DICHLOROETHYLENE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
1,2-DICHLOROPROPANE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
1,3-DICHLORO-PROPYLENE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
ETHYLBENZENE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
METHYL BROMIDE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
METHYL CHLORIDE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
METHYLENE CHLORIDE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
1,1,2,2-TETRACHLORO-ETHANE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
TETRACHLORO-ETHYLENE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
TOLUENE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L

FACILITY NAME AND PERMIT NUMBER:

Western Virginia Water Authority Water Pollution Control Plant; VA0025020

Form Approved 1/14/99

OMB Number 2040-0086

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL *
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
1,1,2-TRICHLOROETHANE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
TRICHLORETHYLENE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
VINYL CHLORIDE	<1	µg/L	<520	g/d	<1	µg/L	<150	g/d	4	EPA 624	1 µg/L
Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	11.6 µg/L
2-CHLOROPHENOL	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
2,4-DIMETHYLPHENOL	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
4,6-DINITRO-O-CRESOL	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
2,4-DINITROPHENOL	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
2-NITROPHENOL	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
4-NITROPHENOL	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
PENTACHLOROPHENOL	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
PHENOL	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
2,4,6-TRICHLOROPHENOL	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.											
BASE-NEUTRAL COMPOUNDS.											
ACENAPHTHENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
ACENAPHTHYLENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
ANTHRACENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
BENZIDINE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
BENZO(A)ANTHRACENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
BENZO(A)PYRENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L

FACILITY NAME AND PERMIT NUMBER:

Western Virginia Water Authority Water Pollution Control Plant; VA0025020

Form Approved 1/14/99

OMB Number 2040-0086

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
BENZO(GHI)PERYLENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
BENZO(K)FLUORANTHENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
BIS (2-CHLOROETHOXY) METHANE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
BIS (2-CHLOROETHYL)-ETHER	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
BIS (2-CHLOROISO-PROPYL) ETHER	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
BIS (2-ETHYLHEXYL) PHTHALATE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
4-BROMOPHENYL PHENYL ETHER	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
BUTYL BENZYL PHTHALATE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
2-CHLORONAPHTHALENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
4-CHLORPHENYL PHENYL ETHER	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
CHRYSENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
DI-N-BUTYL PHTHALATE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
DI-N-OCTYL PHTHALATE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
DIBENZO(A,H) ATHRACENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
1,2-DICHLOROBENZENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
1,3-DICHLOROBENZENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
1,4-DICHLOROBENZENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
3,3-DICHLOROBENZIDINE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
DIETHYL PHTHALATE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
DIMETHYL PHTHALATE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
2,4-DINITROTOLUENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
2,6-DINITROTOLUENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
1,2-DIPHENYLHYDRAZINE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L

FACILITY NAME AND PERMIT NUMBER:

Western Virginia Water Authority Water Pollution Control Plant; VA0025020

Form Approved 1/14/99

OMB Number 2040-0086

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
FLUORENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
HEXACHLOROBENZENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
HEXACHLOROBUTADIENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
HEXACHLOROCYCLO-PENTADIENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
HEXACHLOROETHANE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
INDENO(1,2,3-CD)PYRENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
ISOPHORONE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
NAPHTHALENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
NITROBENZENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
N-NITROSODI-N-PROPYLAMINE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
N-NITROSODI-PHENYLAMINE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
PHENANTHRENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
PYRENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L
1,2,4-TRICHLOROBENZENE	<11.6	µg/L	<6,000	g/d	<11.6	µg/L	<1,750	g/d	3	EPA 625	13.4 µg/L

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.

END OF PART D.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs requred by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combinded sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reducation evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitorng data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

11 chronic 7 acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and on-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

	Test number:_____	Test number:_____	Test number:_____
a. Test information. **See Attachment E.4**			
Test species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			
b. Give toxicity test methods followed.			
Manual title			
Edition number and year of publication			
Page number(s)			
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.			
24-Hour composite			
Grab			
d.. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)			
Before disinfection			
After disinfection			
After dechlorination			

	Test number:_____	Test number:_____	Test number:_____
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:			
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity			
Acute toxicity			
g. Provide the type of test performed.			
Static			
Static-renewal			
Flow-through			
h. Source of dilution water. If laboratory water, specify type; if receiving water, specifiy source.			
Laboratory water			
Receiving water			
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water			
Salt Water			
j. Give the percentage effluent used for all concentrations in the test series			
k. Parameters measured during the test. (State whether parameter meets test methods specifications)			
pH			
Salinity			
Temperature			
Ammonia			
Dissolved oxygen			
l. Test Results			
Acute:			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

Chronic			
NOEC	%	%	%
IC_{25}	%	%	%
Control percent survival	%	%	%
Other (describe)			

m. Quality Control/Quality Assurance			
Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

_____Yes __X__ No If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Text Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: _____ (MM/DD/YYYY)

Summary of results: (see instructions)

See Attachment E.4

END OF PART E.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

ATTACHMENT E.4

SUMMARY OF SUBMITTED BIOMONITORING TEST INFORMATION OUTFALL 001

Western Virginia Water Authority
Water Pollution Control Plant
VA0025020
E.4. Summary of Submitted Biomonitoring Test Information
Outfall 001

Event	Dates	Vertebrate	Invertebrate	LC_{50} (%)	NOEC (%)	Survival in 100%
Quarterly	2/3/09 - 2/5/09	X		> 100		100%
	2/3/09 - 2/5/09		X	> 100		100%
	2/5/09 - 2/9/09	X		> 100	100	100%
	2/5/09 - 2/8/09		X	> 100	100	100%
First Annual	2/16/10 - 2/22/10		X	> 100	48	100%
	2/18/10 - 2/20/10	X		>100		100%
First Annual (follow-up)	3/8/10 - 3/15/10		X	> 100	49	100%
First Annual (follow-up)	5/20/10 -5/22/10	X		> 100		100%
	5/17/10 -5/23/10		X	> 100	100	100%
Second Annual	6/21/11 -6/23/11	X		> 100		100%
	6/21/11 -6/27/11		X	> 100	100	90%
Third Annual	5/22/12 -5/24/12	X		> 100		100%
	5/22/12 -5/28/12		X	> 100	100	90%
Fourth Annual	4/30/13-5/7/13	X		> 100		100%
	4/30/13-5/6/13		X	>100	100	100%
Permit App. Test 1	5/29/13-6/5/13	X		>100	100	100%
Permit App. Test 2	6/25/13-7/2/13	X		>100	100	100%
Permit App. Test 3	7/30/13-8/6/13	X		>100	100	100%
Additional Test 1	8/20/13 – 8/26/13		X	>100	100	100%
Additional Test 2	9/9/13 – 9/15/13		X	>100	100*	100%

*See the attached copy of the email from Deborah L. DeBiasi, Virginia DEQ.

CHA

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Accellent Cardiology

Mailing Address: 200 South Yorkshire Street
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Manufacturer of microtube, fine wire, and machined parts

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Microtubing and fine wire for medical devices

Raw material(s): Precious Metals

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

1,851 gpd (_____ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

2,080 gpd (X continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes _____ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433 (Metal Finishing)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Accellent Cardiology

Mailing Address: 235 South Yorkshire Street

Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Manufacturer of microtube, fine wire, and machined parts,metal finishing

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Microtubing and fine wire for medical devices

Raw material(s): Precious metals

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

750 gpd (_____continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

920 gpd (_____continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes _____ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433 (Metal Finishing)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Advanced Metal Finshing of Roanoke

Mailing Address: 523 Norfolk Avenue
Roanoke, VA 24016

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Categorical (Metal Finishing) Non-discharge, Sanitary Only

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Electro, hydro pneumatic devices

Raw material(s): Gold, silver, nickel, palladium, rhodium, copper, tin, zinc, and chromate

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433 (Metal Finishing)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Akzo Nobel Wood Coatings and Adhesives

Mailing Address: 2837 Roanoke Avenue, SW
Roanoke, VA 24015

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Categorical (Paint and Coating Manufacturer) Non-discharge

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Solvent-based Coatings and Water-based Coatings for kitchen cabinet industry

Raw material(s): Resins, solvents, and pigments

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or __ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 446 (Paint Formulating)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Allied Tool and Machine Company of Virginia

Mailing Address: 3350 Shenandoah Avenue, N.W.
Roanoke, VA 24017

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Phosphatizing, metal finishing

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Sheet Metal Fabrication and Painting

Raw material(s): Sheet Metal, Mild Steel Aluminum

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

138 gpd (_____ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

40 gpd (_____ continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes _____ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433 (Metal Finishing PSNS)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes ____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: ALSCO Incorporated

Mailing Address: 3401 Shenandoah Avenue, N.W
Roanoke, VA 24033

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Commercial Laundry

Raw material(s): Alkaline cleaners, builders, enzyme detergents, bleachers, softeners, and sour salt

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

44,354 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

840 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards ___ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes ____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Aramark Uniform Service

Mailing Address: 905 South Pollard Street
Vinton, VA 24179

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Industrial launderers

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Industrial Laundry

Raw material(s): Alkaline cleaners, builders, enzyme detergents, bleachers, softeners, and sour salt

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

34,758 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

1,180 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards ___ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes ____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Carilion Laundry Service

Mailing Address: 2823 Franklin Road, Building C
Roanoke, VA 24014

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Linen Rental and Laundry Service

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Hospital Laundry

Raw material(s): Alkaline cleaners, builders, enzyme detergents, bleachers, softeners, and sour salt

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

57,009 gpd (X continuous or ____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

1,380 gpd (X continuous or ____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ____ No

b. Categorical pretreatment standards Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: CEI Roanoke, Inc.

Mailing Address: 4411 Plantation Road N.E.
Roanoke, VA 24012

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Formulating, Mixing, Compounding, Manufacturing, Blending

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Cosmestics and Skin Care Products (Creams, lotions,and gels)

Raw material(s): Denatured alcohol, ethyl alcohol, essential oils, emulsifiers, and wax

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

11,895 gpd (X continuous or intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

3,249 gpd (X continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes _____ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 439 (Pharmaceutical Manufacturing (Subcategory D Formulating, Mixing, and Compounding))

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes ____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Coca-Cola Bottling Company Consolidated

Mailing Address: 235 Shenandoah Avenue, NW
Roanoke, VA 24016

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Manufacturing and Bottling Soft Drinks

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Soft Drinks

Raw material(s): Corn syrup, flavorings, Phosphoric Acid, Sanitizers, Sulfuric Acid, and Alkaline Cleaners

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

76,896 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

4,000 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards ___ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes ____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Carilion Roanoke Memorial Hospital

Mailing Address: 1906 Belleview Avenue, SW
Roanoke, VA 24014

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

General Medical and Surgical Hospital

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): N/A

Raw material(s): Acids, Alkalis, and formaldehyde

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

23,931 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

134,438 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards ___ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Dynax America Corporation

Mailing Address: 568 East Park Drive, NE
Roanoke, VA 24019

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Stamping, Flattening, Deburring, Tempering, Ring cooling, Etching

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Steel Friction and Mating Plates for Automatic Transmissions

Raw material(s): Steel, Acids, Alkaline degreasers, NaOH, KOH, Ferric Chloride, Resin, Phenol, MEK, Solvents, and Hydrolic Fluids

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

189,474 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

11,580 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards X Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433 (Metal Finishing)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Eagle United Truck Wash

Mailing Address: 3018 Lee Highway South
Troutville, VA 24175

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Truck Wash; Other support activities for road transportation

F.5.

Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): N/A

Raw material(s): Sodium Metasilicate, Trisodium Nitriatriacetate, Monohydrate, Alklyphenol Ehtoxylate, acids, and oil & grea
acids, and oil & grease.

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

2,100 gpd (_____continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

160 gpd (X continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes _____ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 442 (Transportation Equipment Cleaning)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Excelis Incorporated

Mailing Address: 7635 Plantation Road, NW

Roanoke, VA 24019

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Metal Finishing and Electronic Crystals

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Manufactures and assembles night vision goggles and electronic crystal cathodes

Raw material(s): Fluoride, Molybdenum, Isopropanol, methanol, acetone, acids, alkalies, and metals

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

65,000 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

67,100 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards X Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

Metal Finishing and Electronic Crystals

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Freight Car America

Mailing Address: 830 Campbell Avenue, SE
Roanoke, VA 24012

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

SIC Code: 3743: Railroad Equipment; Facility manufactures steel and aluminum freight cars for railroad transportation

F.5.

Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Steel and aluminum freight cars

Raw material(s): Aluminum sheet metal, NaOH, HCl, phosphoric acid, brightners, surfactants, paint thinners, and hydraulic oil

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

1,500 gpd (_____ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

6,000 gpd (_____ continuous or X intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes _____ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR Part 433 (Metal Finishing)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Global Metal Finishing, Inc.

Mailing Address: 3646 Aerial Way Dr., SW

Roanoke, VA 24015

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Metal Finishing; Addition of protective coatings

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Protective coatings on aluminum parts

Raw material(s): Metals, NaOH, Nitric Acid, Sulfuric Acid, Nickel Isotope, and Polymers

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

110 gpd (_____ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

260 gpd (_____ continuous or X intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes _____ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR Part 433 (Metal Finishing)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: General Electric Drives and Controls, Incorporated

Mailing Address: 1501 Roanoke Boulevard
Roanoke, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Metal Finishing, Electrical Equipment, and Some

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Electrical Equipment

Raw material(s): Sheet Metal, copper, zinc, aluminum, trace metals, phoshpatizing, alkaline cleaners, acids, corrosion inhibitors, oils and lubricants

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

21,100 gpd (_____continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

20,000 gpd (X continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes _____ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433 (Metal Finishing)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Graham White Manufacturing Company

Mailing Address: 1242 Colorado Street

Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Aluminum anondizing

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Air Dryers, Pneumatic and Electropneumatic Valves, Air Gauges, and Brake Components

Raw material(s): Cast iron, bronze, aluminum, steel, and stainless steel

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

3,000 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

3,800 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards X Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433 (Metal Finishing)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Koppers Industries Inc.

Mailing Address: 4020 Koppers Road
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Wood Treating; Preserves Oak and Other Hardwoods Using the Boulton Process

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Railroad Ties

Raw material(s): Oak and mixed hardwoods and creosote

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

26,140 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

3,700 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards X Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 439 (Timber Products Subpart H)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Lebanon Seaboard Corporation

Mailing Address: 525 Branch Drive

Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Biotechnology

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Iron Chelation with Citric Acid for Plant Care

Raw material(s): Iron, Nickel, Zinc, Manganese, NaOH, Phosphorus, Sodium Sulfite, Sodium Polyphosphate, Dimethyl Dihydrogen Diphosphate, Citric Acid Chlorine

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

5,120 gpd (____continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

60 gpd (____continuous or X intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ____ No

b. Categorical pretreatment standards X Yes ____ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Lewis-Gale Medical Center

Mailing Address: 1900 Electric Road

Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Food preparation areas, laboratories, and patient treatment

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): General Medical and Surgical Hospital

Raw material(s): N/A

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

65,000 gpd (____continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

33,000 gpd (X continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Maple Leaf Bakery, Incorporated

Mailing Address: 1955 Blue Hills Drive
Roanoke, VA 24012

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Commercial Bakery; SIC 2051

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Baked Goods

Raw material(s): Flour, food/vegetable oils, seeds, sugar, and honey

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

36,500 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

8,000 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards ___ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes ____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Medeco Security Lock, Incorporated

Mailing Address: 3625 Alleghany Drive
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Deburring, Electroplating, and Spray Painting

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Security Locks

Raw material(s): Brass, Steel, Zinc, Acids, Alkalies

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

4,120 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

2,560 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards X Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433 Metal Finishing

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Metalsa Roanoke, Inc.

Mailing Address: 184 Vista Drive
Roanoke, VA 24019

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Powder Coating

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Steel frame rails for metal trucks

Raw material(s): Steel, chemical pretreatment compounds & powder coating.

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

45,700 gpd (_____ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

4,900 gpd (_____ continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes _____ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433 (Metal Finishing)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Norfolk Southern Railway Company - East End Shops

Mailing Address: 8 1/2 Street & Campbell Avenue
Roanoke, VA 24042

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Locomotive Repair and Maintenance

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Repaired railroad locomotives

Raw material(s): Lube Oil, Diesel Fuel, Borate Cooling Water, Alkaline Cleaner

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

205,600 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

3,340 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards ___ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes ____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Norfolk Southern Railway Company - Shaffers Crossing

Mailing Address: 24th Street & Johnson Avenue
Roanoke, VA 24042

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Repair, Clean, and Services Locomotives and Rail Cars

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Repaired railroad locomotives

Raw material(s): Lube Oil, Diesel Fuel, Borate Cooling Water, Alkaline Cleaner

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

41,330 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

8,130 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards ___ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: New Millenium Building Systems, LLC

Mailing Address: 100 Diuguids Lane
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

SIC 3441: Fabricated Structural Metal; SIC 3444 Sheet Metal Work

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Steel joists and joist girders

Raw material(s): Steel and galvanized coils

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

1,400 gpd (_____ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

900 gpd (_____ continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes _____ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 465 (Coil Coating)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Novozymes Biological, Incorporated

Mailing Address: 111 Kessler Mill Drive
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

SIC 2836: Biological Products

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Cleaning , Wastewater Treatment and Aquaculture Products

Raw material(s): Nickel, Iron, Zinc, Manganese, NaOH, De-foamer, Phosphoric Acid, NaSulfite, chlorine,
NaChloride Na Tri-polyphosphate, dimethly dihydrogen diphosphate

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

24,600 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

1,175 gpd (_____ continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Novozymes Biologicals, Incorporated

Mailing Address: 528 Chapman
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

SIC 2836: Biological Products

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Cleaning, Wastewater Treatment, Animal Feed, and Aquaculture Products

Raw material(s): Nickel, Iron, Zinc, Manganese, NaOH, De-foamer, Phosphoric Acid, NaSulfite, chlorine,
NaChloride Na Tri-polyphosphate, dimethly dihydrogen diphosphate

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

12,600 gpd (_____ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

0 gpd (_____ continuous or X intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Novozymes Biologicals, Incorporated

Mailing Address: 528 Chapman Ave.
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

SIC 2836: Biological Products

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Fermentation, formulation and packaging of microbes

Raw material(s): Nickel, Iron, Zinc, Manganese, NaOH, De-foamer, Phosphoric Acid, NaSulfite, chlorine,
NaChloride Na Tri-polyphosphate, dimethly dihydrogen diphosphate

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

535 gpd (_____continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

40 gpd (_____continuous or X intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Novozymes Biologicals, Incorporated

Mailing Address: 420 Kessler Mill Drive
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

SIC 2875: Fertilizers, mixing only; SIC 2836: Biological Products

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Cleaning, Wastewater Treatment, Plant Care, and Aquaculture

Raw material(s): Nickel, Iron, Zinc, Manganese, NaOH, De-foamer, Phosphoric Acid, NaSulfite, chlorine, NaChloride Na Tri-polyphosphate, dimethly dihydrogen diphosphate

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

2,830 gpd (_____ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

180 gpd (_____ continuous or X intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Novozymes Biologicals, Incorporated

Mailing Address: 620 Chapman Avenue
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

SIC 2836: Biological Products

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Fermentation, formulation and packaging of microbes

Raw material(s): Nickel, Iron, Zinc, Manganese, NaOH, De-foamer, Phosphoric Acid, NaSulfite, chlorine, NaChloride Na Tri-polyphosphate, dimethly dihydrogen diphosphate

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

180 gpd (_____ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

105 gpd (_____ continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Pepsi Cola Bottling Group, LLC

Mailing Address: 226 Lee Highway
Roanoke, VA 24019

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Manufactures Soft Drinks

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Soft Drinks

Raw material(s): Syrup concentrate, corn sweetner, preservatives and flavoring compounds

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

41,300 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

2,000 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards ___ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes ____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Precision Fabrics Group Inc.

Mailing Address: 323 West Virginia Avenue
Vinton, VA 24179

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Weaving, Slashing, Wash down

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Synthetic Nylon, Polyester Filament Yarn, into a variety of products

Raw material(s): Nylon, polyester yarn, fabric sizing, cleaning chemicals, soap corrosion inhibitors,
Biocide 430, oil, NaCL, Soda ash

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

62,540 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

4,700 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards ___ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Precision Steel Manufacturing Corporation

Mailing Address: 1723 Seibel Drive
Roanoke, VA 24012

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Steel Fabrication

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Job Shop Custom Fabrication of Sheet Metal and Structural Steel Products

Raw material(s): Degreaser, phosphatizer, coolant, oil, paints, steel, & sheet metal

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

100 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

900 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards X Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433 (Metal Finishing)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Salem Water Filtration Plant

Mailing Address: 1300 Tidewater Street
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Water Treatment

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Drinking Water

Raw material(s): DELPAC, Fluorosilicic Acid, Chlorine (gas)

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

133,100 gpd (_____ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

260 gpd (_____ continuous or _____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes _____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Virginia Transformer Corporation

Mailing Address: 220 Glade View Drive, N.E.
Roanoke, VA 24012

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Phosphatizing

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Electrical Transformers

Raw material(s): Aluminum, Copper, Steel Stainless Steel, dry insulation, fiberglass, wood, transformer oil, varnish, paints, solvents

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

4,000 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

1,200 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards X Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

40 CFR 433 (Metal Finishing)

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
Western Virginia Water Authority Water Pollution Control Plant;
VA0025020

Form Approved 1/14/99

OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes ____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Veterans Administration Medical Center

Mailing Address: 1970 Roanoke Boulevard
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

General Medical and Surgical Hospital for Veterans, Laundry

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): N/A

Raw material(s): Acids, Alkali's, bio materials, corrosion inhibitors, detergents, builders, bleach, fabric softner

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

0 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

136,000 gpd (X continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ___ No

b. Categorical pretreatment standards ___ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes __X__ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes __X__ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

X Yes ____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 19

b. Number of CIUs. 22

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Yokohoma Tire Corporation

Mailing Address: 1500 Indiana Street
Salem, VA 24153

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Mixing, Milling, Calendering, Extruding

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Automobile and Light Truck Tires

Raw material(s): Natural and synethic rubber, process oils, carbon black, miscellaneous chemical additives, fabric, and steel

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

58,800 gpd (X continuous or ____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

14,250 gpd (X continuous or ____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits X Yes ____ No

b. Categorical pretreatment standards ____ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____ Yes _X_ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?

____ Yes _X_ No (go to F.12.)

F.10. **Waste Transport.** Method by which RCRA waste is received (check all that apply):

____ Truck ____ Rail ____ Dedicated Pipe

F.11. **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____ Yes (complete F.13 through F.15.) _X_ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. **Pollutants.** List the hazardous constituents that are received (or are expected to received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. **Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____ Yes ____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____ Continuous ____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

VPDES PERMIT APPLICATION ADDENDUM – SUPPLEMENTARY INFORMATION

A. General Information

1. Entity to whom the permit is to be issued: **Western Virginia Water Authority**
   Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. Classify the discharge as one of the following by checking the appropriate line:

   X a. Existing discharge

   _____ b. Proposed discharge

   _____ c. Proposed expansion of an existing discharge

B. Location

1. Is this facility located within city or town boundaries? (Y) / N

2. (New Issuances & Modifications Only) What is the tax map parcel number for the land where this facility is located? **N/A**

3. For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities? **5 (estimated)**

4. What is the total acreage of the property on which the treatment plant is located? **110** Acres

5. Give the minimum elevation of the treatment plant site. **877.5** feet

6. Flood elevations of the treatment plant site:
   25 year flood **907** feet
   100 year flood **912** feet

7. Attach to the back of this application a location map(s) which may be traced from or is/are a production of a U.S. Geological Survey topographic quadrangle(s) or other appropriately scaled contour map(s). The location map(s) shall show the following: **See Attached Site Location Map and Facility Layout Map**

   a. Treatment Plant
   b. Discharge point
   c. Receiving waters
   d. Boundaries of the property on which the treatment plant is located, or to be located.
   e. Distance from the treatment plant to the nearest: (Indicate "not applicable" for any distance greater than 2000 feet)
      ii. Residence **100 feet**
      iii. Distribution line for potable water supply **On Property**
      iv. Reservoir, well, or other source of water supply **Not Applicable**
      v. Recreational area **700 feet (Walking Trail)**
   f. Distance from the discharge point to the nearest (Indicate "not applicable" for any distance greater than 15 miles)
      ii. Downstream community **5.6 miles (Smith Mountain Lake residences)**
      iii. Upstream and downstream water intake points **Not Applicable**
      iv. Shellfishing waters **Not Applicable**
      v. Wetlands area **Not Applicable**
      vi. Downstream impoundment **1.7 miles (Niagara Impoundment)**
      vii. Downstream recreational area **5.6 miles (Smith Mountain Lake)**

C. Discharge Description

1. Provide a brief description of the wastewater treatment scheme. Also, attach to the back of this application, a process flow diagram showing each process unit of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system.

See Attachment B.3 and Process Flow Diagrams

2. What is the design average flow of this facility? **55** MGD

3. In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? (Y) / N

If "Yes", please specify the other flow tiers (in MGD) or production levels: **62**
Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?

4. Nature of operations generating wastewater: **POTW**

85 % of flow from domestic connections/sources
Number of private residences to be served by the wastewater treatment facilities:
_____0 _____1-49 **X** 50 or more

15 % of flow from non-domestic connections/sources

5. Mode of discharge: **X** Continuous ___Intermittent ___Seasonal
Describe frequency and duration of intermittent or seasonal discharges:

Potential wet weather discharges from Outfall 003 (EQ Basin Overflow) and Outfall 010 (Influent Pump Station Bypass)

6. Identify the characteristics of the receiving stream at the point just above the facility's discharge point:
X Permanent stream, never dry
__Intermittent stream, usually flowing, sometimes dry
__Ephemeral stream, wet-weather flow, often dry
__Effluent-dependent stream, usually or always dry
__Lake or pond at or below the discharge point
__Other:_____

D. Anticipated Phasing Schedule for Plant Capacity – Proposed / Expanding Discharges

If this application is for a proposed or expanded discharge(s), complete the phasing schedule below beginning with the year in which construction completion is anticipated and progressing in increments of 5 years for 30 years thereafter.

Proposed Design Capacity 62 MGD

Anticipated Date of Construction Completion: _____, _____
Month Year

Years after Completion	Projected Flow (MGD)
0	38
5	40
10	40
15	45
20	45
25	50
30	50

E. Interim Facilities

Are the wastewater treatment facilities interim? (designed for a useful life of less than 5 years)

_____ Yes __X__ No

If so, provide the estimated date to be discontinued (month, year) _____, and the name and location of the intended replacement facility.

_____
Name / Location

EPA I.D. Number *(copy from Item 1 of Form 1)*

VA0025020

Form Approved.
OMB No. 2040-0086.
Approval expires 8-31-98.

Please print or type in the unshaded areas only.

Form 2F NPDES

United States Environmental Protection Agency
Washington, DC 20460

Application for Permit To Discharge Stormwater Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number *(list)*	B. Latitude			C. Longitude			D. Receiving Water *(name)*
008	37°	16'	00"	79°	54'	11"	Roanoke River
009	37°	16'	00"	79°	54'	08"	Roanoke River
011	37°	15'	59"	79°	54'	18"	Roanoke River

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions. None

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.

B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each know past or present areas used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility.

See Attached Site Map & Storm Water Drainage Map.

ATTACHMENT IV-A

STORM WATER DRAINAGE BASINS

GRAPHIC SCALE

0 100 200 500

(IN FEET)
1 inch = 100 ft.

LEGEND

DRAINAGE BASINS AND AREAS:

- OUTFALL 011 TOTAL: 3.2 ACRES IMPERVIOUS: 1.5 ACRES
- OUTFALL 008 TOTAL: 3.9 ACRES IMPERVIOUS: 1.5 ACRES
- OUTFALL 009 TOTAL: 11.2 ACRES IMPERVIOUS: 4.9 ACRES
- STORM WATER OUTFALLS
- STORM WATER DRAINAGE BASIN BOUNDARY
- GENERAL DIRECTION OF STORM WATER FLOW

STORAGE AND LOADING AREAS:

1. FERRIC CHLORIDE STORAGE AND LOADING WITH CONTAINMENT AND DRIP PAD
2. HYPOCHLORITE/ POLYMER STORAGE AND LOADING WITH CONTAINMENT (INACTIVE)
3. HYPOCHLORITE LOADING AREA WITH DRIP PAD
4. SODIUM BISULFATE LOADING AREA WITH DRIP PAD
5. SEPTAGE DUMP STATION WITH CONTAINMENT
6. USED OIL STORAGE TANK (DOUBLE WALLED)
7. VEHICLE GAS AND DIESEL ASTS (DOUBLE WALLED)
8. AUXILIARY GRIT CHAMBER FUEL TANK AND PORTABLE GENERATORS.

OTHER INFORMATION

- NO FERTILIZERS OR SOIL CONDITIONERS USED
- LIMITED HERBICIDE USE AROUND FACILITY TO CONTROL POISON IVY/ OAK.
- LIMITED HERBICIDE USE AROUND LAGOON TO CONTROL PLANT GROWTH.

No.	Submittal / Revision	Appd	By	Date
1	SWPPP INSPECTION		RLH	4/1/10
2	SWPPP INSPECTION		RLH	4/14/11
3	SWPPP INSPECTION		RLH	4/18/12
4	VPDES PERMIT APPLICATION		ACM	8/16/13

WESTERN VIRGINIA WATER AUTHORITY

CHA
1901 Innovation Drive, Suite 2100
Blacksburg, VA 24060
Main: (540) 552-3848 • www.chacompanies.com

Designed: | Drawn: | Checked:

WATER POLLUTION CONTROL PLANT

SITE MAP
STORM WATER DRAINAGE BASINS

Issue Date: 8/2013 | Project No.: 22856 | Scale: AS SHOWN

Continued from the Front

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface *(provide units)*	Total Area Drained *(provide units)*	Outfall Number	Area of Impervious Surface *(provide units)*	Total Area Drained *(provide units)*
008	1.5 acres	3.9 acres	011	2.3 acres	3.2 acres
009	4.9 acres	11.2 acres			

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed, in the last three years, to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

See Attachment IV B

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
	See Attachment IV C	

V. Nonstormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name and Official Title *(type or print)*	Signature	Date Signed
Michael McEvoy, Executive Director, Wastewater Services	Michael T. McEvoy	8/21/13

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test

The outfalls and associated conveyance systems were observed by Western Virginia Water Authority staff on April 13, 2013 and no flows were observed from Outfall 011. Outfall 009 was discharging and a sample was collected. Outfall 008 was offline and not discharging.

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

No significant spills or leaks have occurred. The WPCP staff record and maintain a list of all spills or leaks at the plant site; a copy of the list is available upon request.

ATTACHMENT IV-B

MATERIALS STORAGE

WESTERN VIRGINIA WATER AUTHORITY

VPDES PERMIT VA0025020

FORM 2F ATTACHMENT IV-B

Part IV. Item B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed, in the last three years, to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

The bulk chemicals utilized at the facility include the following: ferric chloride, sodium hypochlorite, diesel, sodium bisulfite, gasoline, and lubricants. The chemical storage areas for these chemicals have indoor storage or secondary containment and do not contact storm water. The diesel fuel is present in a regulated UST which has constant leak monitoring and is in full compliance with current regulations.

The potential exposure relates to the delivery areas for ferric chloride, ferrous chloride, sodium hypochlorite, and diesel fuel. This exposure is limited to a spill which might occur when these tanks are being filled. This is managed through spill response efforts as outlined within the storm water pollution prevention plan.

The facility does not utilize soil conditioners or fertilizers. The only pesticides utilized at the facility are for interior building spaces and pesticides which have received EPA approval as non-dangerous to aquatic life. The facility employs a state licensed pesticide applicator. Any use of pesticides is done by these employees. The employees follow all manufacturers' recommendations for the quantity and application methods applied.

The facility currently uses herbicides to kill poison oak and poison ivy in areas around the plant. The facility contracts the application of Garlon 3A to a commercial firm. The contract company also sprays Aqua Neat Aquatic Herbicide around the lagoons at the facility. The contract company follows best management practices during application of any herbicides at this facility.

CHA

ATTACHMENT IV-C

CONTROL MEASURES

WESTERN VIRGINIA WATER AUTHORITY

VPDES PERMIT VA0025020

FORM 2F ATTACHMENT IV-C

Part IV. Item C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall 008 This includes an area at the north of the property located between the Flocculation Basins and Biological Aerated Filters. The structural controls consist of a dedicated storm water conveyance system (grass-lined ditches and pipes), containment around the portable waste oil tank, and drip pads at the hypochlorite and bisulfite loading stations. Nonstructural controls consist of good housekeeping practices such as keeping the roads and conveyance system clean, conducting periodic inspections, and keeping pervious surfaces vegetated to minimize erosion. The storm water receives no treatment.

Treatment Code: 4-A

Outfall 009 This includes the eastern area of the facility: the Administration Building and Maintenance Building and the associated building roof drains, and extends west to the EQ Basins. The structural controls consist of a dedicated storm water conveyance system consisting of grass-lined ditches, pipes, and an artificial wetlands area that treats some of the storm water flow from this drainage area. In addition, there is containment around the ferric chloride, polymer, and hypochlorite tanks. Nonstructural controls consist of good housekeeping practices such as keeping the roads and conveyance system clean, conducting periodic inspections, and keeping pervious surfaces vegetated to minimize erosion.

Treatment Code: Partial wetlands treatment (no code) and 4-A

Outfall 011 This includes the area east of the Primary and Secondary Clarifiers, including the area surrounding the Scum Concentrator Building, Thickened Sludge Pump Station, and four of the Anaerobic Digesters. The structural controls consist of a dedicated storm water conveyance system consisting of grass-lined ditches and pipes. Nonstructural controls consist of good housekeeping practices such as keeping the roads and conveyance systems clean, conducting periodic inspections, and keeping pervious surfaces vegetated to minimize erosion. The storm water receives no treatment.

Treatment Code: 4-A

CHA

Continued from Page 2

VII. Discharge Information

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Tables VII-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E. Potential discharges not covered by analysis-is any pollutant listed in Table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ Yes *(list all such pollutants below)* ☒ No *(go to section VIII)*

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes *(list results below)* ☒ No *(go to Section IX)*

IX. Contract Analysis Information

Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

☒ Yes *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ No *(go to Section X)*

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
REI Consultants	225 Industrial Park Drive Beaver, WV 25813	(304) 255-2500	COD

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title *(type or print)*	B. Area Code and Phone No.
Michael McEvoy, Executive Director, Wastewater Services	(540) 853-1449
C. Signature: Michael T. McEvoy	D. Date Signed: 8/21/13

EPA ID Number *(copy from Item 1 of Form 1)*

VA0025020

Form Approved.
OMB No. 2040-0086.
Approval expires 8-31-98.

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A- You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	**Outfall 008** Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil and Grease	NA	NA	NA	NA	NA	**This outfall has been disconnected due to construction at the site. It will likely be out of service for two years.**
Biological Oxygen Demand (BOD5)	NA	NA	NA	NA	NA	
Chemical Oxygen Demand (COD)	NA	NA	NA	NA	NA	
Total Suspended Solids (TSS)	NA	NA	NA	NA	NA	
Total Kjeldahl Nitrogen	NA	NA	NA	NA	NA	
Nitrate plus Nitrite Nitrogen	NA	NA	NA	NA	NA	
Total Phosphorus	NA	NA	NA	NA	NA	
pH	Minimum NA	Maximum NA	Minimum NA	Maximum NA		

Part B- List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under and existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		

Continued from the Front

Part C- List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Outfall 008

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		

Part D- Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*	7. Season sample was taken	8. Form of Precipitation *(rainfall, snowmelt)*
NA	NA	NA	NA	NA	NA	NA	NA

9. Provide a description of the method of flow measurement or estimate

NA

EPA ID Number *(copy from Item 1 of Form 1)*

VA0025020

Form Approved.
OMB No. 2040-0086.
Approval expires 8-31-98.

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A- You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	**Outfall 009** Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil and Grease	<2.0 mg/L	NA	<2.0 mg/L	NA	2	Surface Runoff
Biological Oxygen Demand (BOD5)	<5 mg/L	5 mg/L	<5 mg/L	5 mg/L	1	Surface Runoff
Chemical Oxygen Demand (COD)	27 mg/L	24 mg/L	27 mg/L	24 mg/L	1	Surface Runoff
Total Suspended Solids (TSS)	3.4 mg/L	44.3 mg/L	3.4 mg/L	44.3 mg/L	1	Surface Runoff
Total Kjeldahl Nitrogen	1.1 mg/L	1.1 mg/L	1.1 mg/L	1.1 mg/L	1	Surface Runoff
Nitrate plus Nitrite Nitrogen	0.59 mg/L	0.50 mg/L	0.59 mg/L	0.50 mg/L	1	Surface Runoff
Total Phosphorus	0.14 mg/L	0.26 mg/L	0.14 mg/L	0.26 mg/L	1	Surface Runoff
pH	Minimum 7.36 S.U.	Maximum 7.36 S.U.	Minimum 7.36 S.U.	Maximum 7.36 S.U.	1	Surface Runoff

Part B- List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under and existing NPDES permit). Complete one t

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
E. coli	980 N/100 mL	NA	980 N/100 mL	NA	1	Surface Runoff
Total Residual Chlorine	0.01 mg/L	NA	0.01 mg/L	NA	1	Surface Runoff

Continued from the Front

Part C- List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	**Outfall 009** Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		

Part D- Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable	5. Maximum flow rateduring rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*	7. Season sample was taken	8. Form of Precipitation *(rainfall, snowmelt)*
05/06/13	**180 minutes**	**1.52 inches**	**> 72 hours**	**180 gallons/minute**	**~5,000 gallons**	**Spring**	**Rainfall**

9. Provide a description of the method of flow measurement or estimate

The flow was determined by estimating the time it took to fill a one-gallon bucket.

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A- You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	**Outfall 011**
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		Sources of Pollutants
Oil and Grease	NA	NA	NA	NA	NA	**This outfall has not discharged during this permit cycle.**
Biological Oxygen Demand (BOD5)	NA	NA	NA	NA	NA	
Chemical Oxygen Demand (COD)	NA	NA	NA	NA	NA	
Total Suspended Solids (TSS)	NA	NA	NA	NA	NA	
Total Kjeldahl Nitrogen	NA	NA	NA	NA	NA	
Nitrate plus Nitrite Nitrogen	NA	NA	NA	NA	NA	
Total Phosphorus	NA	NA	NA	NA	NA	
pH	Minimum NA	Maximum NA	Minimum NA	Maximum NA		

Part B- List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under and existing NPDES permit). Complete one t

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		

Continued from the Front

Part C- List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Outfall 011
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		Sources of Pollutants

Part D- Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*	7. Season sample was taken	8. Form of Precipitation *(rainfall, snowmelt)*
NA	NA	NA	NA	NA	NA	NA	NA

9. Provide a description of the method of flow measurement or estimate

NA

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Section A pertains to all applicants. The applicability of Sections B, C and D depends on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? X Yes __No

   Does this facility derive a material from sewage sludge? __Yes X No

   If you answered "Yes" to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Does this facility apply sewage sludge to the land? __Yes X No

   Is sewage sludge from this facility applied to the land? X Yes __No

   If you answered "No" to both questions above, skip Section C.

   If you answered "Yes" to either, answer the following three questions:

   a. Does the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
   __Yes X No

   b. Is sewage sludge from this facility to be placed in a bag or other container for sale or give-away for application to the land? __Yes X No

   c. Is sewage sludge from this facility be sent to another facility for treatment or blending? __Yes X No

   If you answered "No" to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

   If you answered "Yes" to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? __Yes X No

   If "Yes", complete Section D (Surface Disposal).

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. **Facility Information.**
   a. Facility name: **Western Virginia Water Authority Water Pollution Control Plant**
   b. Contact person: **S. Scott Shirley**
      Title: **Director of Wastewater Operations**
      Phone: **(540) 853-2491**
   c. Mailing address:
      Street or P.O. Box: **1502 Brownlee Avenue S.E.**
      City or Town: **Roanoke** State: **Virginia** Zip: **24014**
   d. Facility location:
      Street or Route #: **Same as above**
      County:
      City or Town: State: Zip:
   e. Is this facility a Class I sludge management facility? **X** Yes ___ No
   f. Facility design flow rate: **55** mgd
   g. Total population served: **~ 248,100**
   h. Indicate the type of facility:
      X Publicly owned treatment works (POTW)
      ___ Privately owned treatment works
      ___ Federally owned treatment works
      ___ Blending or treatment operation
      ___ Surface disposal site
      ___ Other (describe):

2. **Applicant Information.** If the applicant is different from the above, provide the following:
   a. Applicant name: **same as above**
   b. Mailing address:
      Street or P.O. Box:
      City or Town: _____ State: _____ Zip:
   c. Contact person:
      Title:
      Phone: ( )
   d. Is the applicant the owner or operator (or both) of this facility?
      X owner **X** operator
   e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
      X facility _____ applicant

3. **Permit Information.**
   a. Facility's VPDES permit number (if applicable): **VA0025020**
   b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

Permit Number:	Type of Permit:
VAL025020	**NPDES - Sludge**
_____	

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

4. **Indian Country**. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? __Yes _X_No If yes, describe:

5. **Topographic Map**. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility: **See Site Location Map and Facility Layout Map**
   a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
   b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

6. **Line Drawing**. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction. **See Process Flow Diagram-Solids**

7. **Contractor Information**. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? _X_Yes __No
   If yes, provide the following for each contractor (attach additional pages if necessary).
   Name: **Bionomics Incorporated**
   Mailing address:
   Street or P.O. Box: **516 Roundtree Road**
   City or Town: **Charlotte** State: **NC** Zip: **28217**
   Phone: **(704) 529-0000**
   Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:
   VDH BUR 79 – Franklin, VDH BUR 114 – Bedford If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. **Pollutant Concentrations**. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old. **See Attachment A.8**

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

ATTACHMENT A.6

SOLIDS FLOW DIAGRAM

GRAVITY THICKENER OVERFLOW TO TINKER CREEK INTERCEPTOR

PRIMARY SLUDGE PUMP STATION NO 1

PRIMARY SLUDGE PUMP STATION NO 2

PS

NO 1 | NO 2 | NO 3 | NO 4 | NO 5 | NO 6 | NO 7 | NO 8 | NO 9

SC

PRIMARY CLARIFIERS

SCUM CONCENTRATION BUILDING

ONLY AS NEEDED

DUMPSTER LANDFILL

GRAVITY THICKENER NO 1

GRAVITY THICKENER NO 2

BS

DISTRIBUTION BOX

CS

COAGULATION SETTLING BASINS

COAGULATION SLUDGE PUMPS

TS

THICKENED SLUDGE PUMP STATION

WAS FROM RAS PUMP A1-A4 DISCHARGE HEADER

WAS FROM RAS PUMP A5-A6 DISCHARGE HEADER

WAS FROM RAS PUMP A7-A10 DISCHARGE HEADER

WAS

SLUDGE BLEND TANK

DAF FEED PUMPS

BOTTOM SLUDGE PUMPS

TOP SLUDGE PUMPS

DAF NO 1

DAF NO 2

DAF NO 3

DISSOLVE AIR FLOATATION THICKENER

UNDERFLOW TO ACTIVATED SLUDGE, TINKER CREEK INTERCEPTOR, OR RECYCLE WATER AIR ENTRAINMENT AT DAF

WAS FROM RAS PS C DISCHARGE HEADER

WAS FROM RAS PS B DISCHARGE HEADER

ADS TRANSFER PUMPS

PRIMARY ANAEROBIC DIGESTER NO 1

PRIMARY ANAEROBIC DIGESTER NO 2

SECONDARY ANAEROBIC DIGESTER "A"

PRIMARY ANAEROBIC DIGESTER NO 3

ADS TRANSFER PUMPS

SECONDARY ANAEROBIC DIGESTER "B"

PRIMARY ANAEROBIC DIGESTER NO 4

ADS TRANSFER PUMPS

PRIMARY ANAEROBIC DIGESTER NO 6

PRIMARY ANAEROBIC DIGESTER NO 5

SECONDARY ANAEROBIC DIGESTER "C"

PRIMARY ANAEROBIC DIGESTER NO 7

ADS TRANSFER PUMPS

ADS

LAGOON NO 1

LAGOON NO 2

LAGOON NO 3

LAGOON NO 4

LAGOON NO 5

SLUDGE STORAGE LAGOONS

BIOSOLIDS TO LAND APPLICATION SITES

LAGOON DECANT TO EQUALIZATION BASINS

LEGEND

ADS	ANAEROBICALLY DIGESTED SLUDGE
BS	BLENDED SLUDGE
CS	COAGULATED SLUDGE
PS	PRIMARY SLUDGE
RAS	RETURN ACTIVATED SLUDGE
SC	SCUM
TS	THICKENED SLUDGE
WS	WASTE ACTIVATED SLUDGE
FM	FLOW METER
M	MOTOR OPERATED CONTROL VALVE
	NEW STRUCTURE
	EXISTING STRUCTURE

MODIFIED FROM NOVEMBER 2003 PROCESS FLOW SCHEMATIC PREPARED BY HAZEN AND SAWYER

CHA
1901 Innovation Drive, Suite 2100
Blacksburg, VA 24060
Main: (540) 552-5548 · www.chacompanies.com

WESTERN VIRGINIA WATER AUTHORITY
WATER POLLUTION CONTROL PLANT
PROCESS FLOW DIAGRAM
SOLIDS TRAIN

PROJECT NO. 25154

DATE: 8/2013

ATTACHMENT A.8

POLLUTANT CONCENTRATIONS

Western Virgi[illegible]ter Authority
Water Poll[illegible]ntrol Plant
Attachment A.6 Sludge Data

	Pollutant Concentrations (mg/kg)													
Sample Date	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Potassium	Potash	Selinium	Zinc	TKN	% Solids
Jan-09	9.8	1.9		654	97	3.6	24	36	1,800	33,700	10.5	989	41,800	7.85
Feb-09	9.5	3.0		622	109	2.6	23	33	1,900	25,900	0	986	38,000	9.52
Mar-09	9.8	2.0		591	110	1.8	22	30	2,000	19,700	3.3	909	35,100	8.9
Apr-09	10.5	4.6		644	111	1.9	25	28	1,400	34,800	3.1	989	40,800	7.9
May-09	10.6	2.7		597	111	2	22	33	2,200	27,700	3.4	847	29,200	12.55
Jun-09	9.6	1.2		621	107	1.9	24	34	3,200	16,700	1.9	981	38,000	3.68
Jul-09	7.4	2.6		540	101	1.9	20	40	1,500	28,000	4.3	820	33,500	8.57
Jul-09	8.2	1.7		568	9.4	1.4	16	26	2,000	28,700	7.9	1640	40,600	7.78
Aug-09	8.7	2.1		599	107	2.1	18	32	2,400	30,400	11.4	3210	31,900	11.24
Sep-09	7.8	1.1		449	75	2	12	37	<0.04	34,000	6.3	721	32,800	6.59
Oct-09	10.1	2.6		608	104	1.3	16	28	2,300	22,800	0	920	42,300	6.39
Nov-09	10.9	3.0		636	114	2	20	30	2,000	27,200	0	1870	35,900	7.24
Dec-09	9.3	3.0		610	124	1.5	14	28	2,200	29,100	0	994	40,600	7.89
Jan-10	8.0	2.0		630	106	2.9	16	24	1,900	28,600	1	960	37,200	8.9
Feb-10	7.0	2.0		570	99	1.8	14	28	2,100	10,100	0	950	39,000	9.94
Mar-10	11.0	3.0		600	110	1.8	14	26	1,600	31,000	0	960	42,600	11.03
May-10	7.0	4.0		520	103	2.3	15	32	1,500	27,500	0	830	36,200	8.7
Jun-10	7.0	7.0		670	201	2.5	14	40	1,500	29,800	3	1090	37,400	7.43
Jul-10	8.0	5.0		666	177	2.2	13	37	1,500	29,700	0	1210	32,500	11.89
Aug-10	6.0	4.0		502	148	1.6	11	35	1,800	19,300	0	797	17,400	23.65
Sep-10	8.0	5.0		627	158	2	14	33	2,000	22,300	0	1060	33,000	12.89
Oct-10	4.0	1.0		235	49	0.4	9	13	8,000	11,400	0	349	15,800	16.6
Nov-10	9.0	3.0		611	118	2	21	28	1,800	29,600	0	940	38,100	9.83
Dec-10	11.0	3.0		652	125	1.9	23	35	2,200	25,400	3	988	39,300	10.04
Jan-11	9.0	3.0		634	116	2.2	18	28	2,100	8,000	<1.0	955	38,200	7.69
Mar-11	8.0	2.0		592	103	1.4	15	25	2,500	26,000	2	857	45,600	6.58
Apr-11	8.0	2.0		659	101	1.7	13	27	2,800	13,000	1	1,010	49,800.00	7.65
May-11	10.0	4.0		672	151	5.7	13	42	1,360	26,500	1.0	874	30900	10.55
Jun-11	2.8	0.9		588.0	112.0	0.5	5.3	6.8	1,650	37,700	0.4	811.0	24517	9.2
Jul-11	8.0	2.0		625	100	1	16	25	1,700	30,100	1	950	42700	7.5
Aug-11	8.5	2.7		693	103	1.3	16.5	25.15	1,630	25,100	1	783.5	37450	7.93
Sep-11	7.0	2.8		736	196	2.53	14.35	31.9	1,570	29,600	<1.0	938	25600	8.29
Oct-11	6.1	2.7		846	172	17	12.05	49.7	1,375	23,950	<1.0	843	16800	13.43
Nov-11	7.7	2.7	112	708	107	1.14	12.4	21	1,330	32,200	1	1000	24600	14.73
Dec-11	9.3	3.4		731	108	1.01	13.1	23.05	1,710	29,500	4	980.5	23400	13.96
Jan-12	10.0	2.0		652	102	1.20	15	24	1,780	25,500	1	962	31,300	11.02
Feb-12	8.0	3.0		433	156	1.40	8	31	1,300	21,400	ND	594	20,800	16.14
Mar-12	13.0	2.0	112	483	70	0.40	11	27	2,040	21,300	1	779	41,400	6.08
Apr-12	11.0	2.0		544	72	1.00	13	27	2,060	15,300	2	888	39,800	8.56
May-12	14.0	2.0		579	84	1.70	15	28	2,100	24,200	1	913	40,700	7.96
Jun-12	8.0	4.0		625	129	2.70	13	29	2,100	24,200	1	1,050	38,400	8.30
Jul-12	10.0	5.0		701	170	2.80	19	35	1,860	29,500	<1.0	1,090	34,200	8.24
Aug-12	9.0	4.0		592	91	1.60	15	29	2,850	28,600	1	908	44,200	6.86
Sep-12	10.0	3.0		684	114	2.10	19	31	2,020	38,800	1	1,060	40,800	9.37
Oct-12	9.0	3.0		624	101	2.00	19	26	2,250	34,600	<5.0	1,010	39,800	8.95
Nov-12	10.0	4.0	157	715	133	2.30	21	32	1,750	36,900	<5.0	1,020	40,400	8.44
Dec-12	11.0	3.0	141	587	120	1.30	20	31	1,830	30,900	868	868	35,500	9.57
Jan-13	12.0	3.0		597	103	1.3	26	31	1,350	26,200	<5.0	889	30,400	9.91
Feb-13	11.0	3.0	110	568	98	1.5	21	28	1,640	30,800	<5.0	827	30,900	10.02
Mar-13	9.0	3.0	107	565	96	1.5	20	30	1,890	30,700	5	809	30,700	9.36
Apr-13	5.0	2.0	123	455	58	0.8	9	24	2,360	18,700	<5.0	723	56,900	4.43
May-13	6.0	2.0	133	571	69	<0.4	12	30	1,860	28,300	<5.0	871	49,300	6.12
Jul-13	8.0	2.0	NA	569	78	1.1	13	25	1,600	29,800	<5.0	855	41,400	6.54
Average	8.80	2.84	124	605	111	2.11	16	30	2,022	26,429	23.21	984	35,764	9.67

Notes: 1. Detection levels vary based on solids concentrations.
2. Blank indicates not analyzed
3. Detection limit indicated as "less than" (<) values for those parameters not detected during analysis.

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

9. **Certification**. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

_X_ Section A (General Information)
_X_ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
_X_ Section C (Land Application of Bulk Sewage Sludge)
____ Section D (Surface Disposal)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name and official title: Michael T. McEvoy, Executive Director, Wastewater Services

Signature Michael T. McEvoy Date Signed 8/21/13

Telephone number (540) 853-1449

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site**.
Total dry metric tons per 365-day period generated at your facility: **10,406** dry metric tons

2. **Amount Received from Off Site**. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: **See Attachment B.2**
   b. Contact Person:
      Title:
      Phone ( )
   c. Mailing address:
      Street or P.O. Box:
      City or Town:_____ State:_____ Zip:
   d. Facility location:
      (not P.O. Box)
   e. Total dry metric tons per 365-day period received from this facility:_____ dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

3. **Treatment Provided at Your Facility**.
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      __Class A X Class B __Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: **Anaerobic Digestion**

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      X Option 1 (Minimum 38 percent reduction in volatile solids)
      __ Option 2 (Anaerobic process, with bench-scale demonstration)
      __ Option 3 (Aerobic process, with bench-scale demonstration)
      __ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      __ Option 5 (Aerobic processes plus raised temperature)
      __ Option 6 (Raise pH to 12 and retain at 11.5)
      __ Option 7 (75 percent solids with no unstabilized solids)
      __ Option 8 (90 percent solids with unstabilized solids)
      __ None or unknown

   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: **Anaerobic Digestion**

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: **N/A**

ATTACHMENT B.2

SLUDGE PROVIDERS

WESTERN VIRGINIA WATER AUTHORITY
WATER POLLUTION CONTROL PLANT
VPDES SEWAGE SLUDGE PERMIT APPLICATION ATTACHMENT B.2

Facility	Contact Person/Title	Phone	Mailing Address	Facility Address	Total dry metric tons*
Booker T. Washington Water Pollution Control Plant	M.H. Doss, Superintendent Waste Water Operations	540-853-5962	1502 Brownlee Ave., SE	415 Old Taylor Drive Hardy, VA 24101	1.5
Falling Creek Water Pollution Control Plant	Jeff Booth, Water Operations Superintendent	540-380-2687	3031 Laurel Glen Drive, Vinton, VA 24179	Same	7.4
Woodhaven Nursing Home - STP	David F. Graves, President	540-947-2207	US Route 460 West, P.O. Box 168 Montvale, VA 24122-0168	13055 West Lynchburg – Salem Turnpike Montvale, VA 24122-0168	3.65
Town of Buchanan	Larry Hall, Mayor	540-254-1212	P.O. Box: 205 Buchanan, VA 24066	541 Parkway Drive Buchanan, VA 24066	15
Roanoke Cement	Lance Clark, Environmental Engineer	540-966-6854	6071 Catawba Road Troutville, VA 24175	Same	2.0
Catawba Hospital VA Department of Mental Health	Frank Garman, Building and Grounds Superintendent	540-375-4332	P.O. Box 200 Catawba, VA 24070	5525 Catawba Hospital Catawba, VA 24070	1.5
Town of Fincastle Sewage Treatment Plant**	Mike Doss, Superintendent of Wastewater Operations	540-473-3065	1478 Botetourt Rd. Fincastle, VA 24090	Same	<1.0
Blacksburg Country Club Estates	Diana Reynolds Superintendent	540-989-3268	3807 Brandon Avenue, SW, Suite 245 Roanoke, VA 24018	Blacksburg, VA 24060	5.68
ABB, Inc.	Daniel E. Hoosier	276-688-3325	P.O. Box 38 Bland, VA 24315	171 Industrial Drive, Bland, VA 24315	2.1
Foster Falls Recreation Area (New River Trail State Park in Wythe County)	Greg Holts	276-699-6778	176 Orphanage Drive Max Meadows, VA 24360	Same	1.0†
Ramsey's Mobile Home Park Sewage Treatment Plant	Dan Ramsey, Owner	540- 580-8685	P.O. Box 181 Blue Ridge, VA 24064	Dearing Lane Vinton, VA 24179	<1.0

* Amount received from this facility per 365-day period.
**Sludge is normally pressed and sent to Botetourt County Landfill. The WVWA POTW is used only in an emergency.
†WWTP at park not yet in operation.

4. **Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).** N/A

(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)

a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: _____ dry metric tons

b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away? __Yes __No

5. **Sale or Give-Away in a Bag or Other Container for Application to the Land.** N/A

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land:_____ dry metric tons

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. **Shipment Off Site for Treatment or Blending.** N/A

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

a. Receiving facility name:

b. Facility contact:
Title:
Phone: ( )

c. Mailing address:
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: _____ dry metric tons

e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

Permit Number:	Type of Permit:
_____	
_____	

f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? __Yes __No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
__Class A __Class B __Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge:

g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? __Yes __No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
__ Option 1 (Minimum 38 percent reduction in volatile solids)
__ Option 2 (Anaerobic process, with bench-scale demonstration)
__ Option 3 (Aerobic process, with bench-scale demonstration)
__ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
__ Option 5 (Aerobic processes plus raised temperature)
__ Option 6 (Raise pH to 12 and retain at 11.5)
__ Option 7 (75 percent solids with no unstabilized solids)
__ Option 8 (90 percent solids with unstabilized solids)

__ None unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge:

h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
__Yes __No
If "Yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:

i. If you answered "Yes" to f., g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

j Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? __Yes __No

If "Yes", provide a copy of all labels or notices that accompany the product being sold or given away.

k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ___ Yes ___ No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.
Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported.

7. **Land Application of Bulk Sewage Sludge.**

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: **5,673** dry metric tons

b. Do you identify all land application sites in Section C of this application? __Yes __No **N/A**
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

c. Are any land application sites located in States other than Virginia? __Yes __No **N/A**
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV). **N/A**

8. **Surface Disposal.** **N/A**

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons

b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
__Yes __No
If "No", answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.

c. Site name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: __Site Owner __Site operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons

g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

Permit Number:	Type of Permit:
_____	
_____	

9. **Incineration.** N/A

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator _____ dry metric tons

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
___ Yes ___No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: ___Incinerator Owner ___Incinerator Operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons

g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:

Permit Number:	Type of Permit:
_____	
_____	

10. **Disposal in a Municipal Solid Waste Landfill.** N/A

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

a. Landfill name:

b. Contact person:
Title:
Phone:
Contact is: ___Landfill Owner ___Landfill Operator

c. Mailing address.
Street or P.O. Box:
City or Town: State: Zip:

d. Landfill location.
Street or Route #:
County:
City or Town: State: Zip:

e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill:
_____ dry metric tons

f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:

Permit Number:	Type of Permit:
_____	
_____	

g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill? ___Yes __No

h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? ___Yes __No

i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered?___Yes ___ No
Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported.

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:

- ***The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or***
- ***The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or***
- ***You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).***

Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site.

a. Site name or number:

b. Site location (Complete i and ii)

i. Street or Route#:
County:
City or Town: _____ State: _____ Zip:

ii. Latitude:_____ Longitude:
Method of latitude/longitude determination
_____ USGS map _____ Filed survey _____ Other

See Attachment C.1-2 and BUR Site Books from Bionomics Inc. submitted previously to DEQ.

c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location. **See BUR Site Books from Bionomics Inc. submitted previously to DEQ.**

2. Owner Information.

a. Are you the owner of this land application site? __Yes _X_No

b. If no, provide the following information about the owner:
Name: _____

City or Town: _____ State:_____ Zip:
Phone: ( )

See Attachment C.1-2 and BUR Site Books from Bionomics Inc. submitted previously to DEQ.

3. Applier Information:

a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? __Yes _X_No

b. If no, provide the following information for the person who applies the sewage sludge:
Name: Bionomics Incorporated
Street or P.O. Box: 516 Roundtree Road
City or Town: Charlotte State: NC Zip: 28217-2133
Phone: (704) 529-0000

c. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:

Permit Number:	Type of Permit:
VDH BUR 79	VDH Biosolids Use Permit
VDH BUR 114	VDH Biosolids Use Permit

4. Site Type. Identify the type of land application site from among the following:

_X_Agricultural land __Reclamation site __Forest
__Public contact site __Other. Describe

5. Vector Attraction Reduction.

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?
____Yes _X_No If yes, answer a and b.

a. Indicate which vector attraction reduction option is met:
__ Option 9 (Injection below land surface)
__ Option 10 (Incorporation into soil within 6 hours)

b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:

ATTACHMENT C.1-2

LAND APPLICATION SITES

FRANKLIN COUNTY LAND APPLICATION SUMMARY
Attachment C.1

Farmer	Field	Total Acres	Latitude	Longitude
John Synder	RO2-1	5.9	37°4'2.06"N	79°50'20.49"W
	RO2-2	37.7	37°3'58.73"N	79°49'55.87"W
	RO2-5	69.8	37°7'37.23"N	79°51'43.54"W
	RO2-7	20.7	37°7'43.18"N	79°45'11.45"W
	RO2-10	19.7	37°7'21.77"N	79°44'48.27"W
	RO2-13	76.2	37°3'58.12"N	79°50'45.72"W
	RO2-16	16.9	37°4'7.81"N	79°50'43.77"W
	RO2-18	39.4	37°4'16.32"N	79°50'38.31"W
George English	RO9-1	43.0	36°55'24.56"N	79°48'41.40"W
	RO9-2	19.4	36°55'29.36"N	79°49'18.56"W
	RO9-2A	8.3	36°55'32.93"N	79°49'21.22"W
	RO9-3	13.2	36°55'31.39"N	79°49'10.56"W
	RO9-3A	17.5	36°55'33.49"N	79°49'2.72"W
	RO9-4	23.7	36°55'43.93"N	79°48'57.30"W
	RO9-5	22.3	36°55'49.49"N	79°49'8.33"W
JT Brooks	RO11-1	60.8	37°0'35.88"N	79°44'33.56"W
	RO11-2	46.7	37°3'28.64"N	79°48'15.94"W
	RO11-3	11.9	37°0'44.57"N	79°44'20.11"W
	RO11-4	8.2	37°0'56.5"N	79°44'34.19"W
	RO11-5	5.2	37°0'56.11"N	79°44'41.72"W
	RO11-6	13.9	37°0'59.79"N	79°44'26.81"W
	RO11-7	10.1	37°58'52.6"N	79°45'4.99"W
	RO11-8	19.5	37°58'53.32"N	79°44'48.96"W
Noel Parcell	RO12-1	11.3	36°56'50.99"N	79°48'16.86"W
	RO12-2	14.1	36°57'0.25"N	79°48'26.2"W
	RO12-3	18.3	36°57'15.95"N	79°49'2.4"W
	RO12-3A	4.1	36°57'18.01"N	79°49'16.52"W
	RO12-10	18.6	36°57'29.31"N	79°48'57.99"W
	RO12-12	41.7	36°57'1.86"N	79°48'55.2"W
	RO12-13	23.8	36°56'20.31"N	79°48'47.97"W
	RO12-14	9.3	36°57'22.39"N	79°48'49.14"W
	RO12-14A	8.6	36°57'25.83"N	79°48'49.19"W
William Helms	RO13	NA	NA	NA
Brenda Tyree	RO29-4	15.8	36°56'56.5"N	79°46'38.08"W
	RO29-5	81.7	36°56'45.76"N	79°46'35.78"W
	RO29-6	32.1	36°56'28.58"N	79°46'31.42"W
Barry Cundiff	RO35-1	33.1	36°57'16.82"N	79°45'8.89"W
Allen Layman	RO36	NA	NA	NA

Farmer	Field	Total Acres	Latitude	Longitude
Robert Fralin	RO39-1	18.4	36°56'10.65"N	79°43'34.74"W
	RO39-3	6.6	36°56'14.89"N	79°43'32.94"W
	RO39-4	5.7	36°56'16.78"N	79°43'41.71"W
	RO39-5	36.5	36°56'21.18"N	79°43'30.24"W
	RO39-6	12.1	36°56'26.79"N	79°43'41.53"W
	RO39-7	4.5	36°56'39.09"N	79°43'43.43"W
	RO39-8	3.8	36°56'50.16"N	79°43'45.04"W
Vann Flora	RO40-3	29.5	37°2'23.75"N	80°4'59.39"W
	RO40-4	10.3	37°2'39.88"N	79°59'48.82"W
	RO40-5	19.0	37°2'49.61"N	79°59'40.37"W
John Bowman	RO41-1	8.9	37°3'58.35"N	80°4'31.5"W
	RO41-2	14.7	37°3'58.1"N	80°4'21.12"W
	RO41-3	10.4	37°3'51.19"N	80°4'15.7"W
	RO41-5	9.3	37°3'45.44"N	80°3'59.62"W
	RO41-6	8.3	37°3'41.61"N	80°3'47.11"W
	RO41-7	13.0	37°3'38.98"N	80°3'56.26"W
	RO41-8	14.8	37°3'39.79"N	80°4'5.87"W
Patrick Clingenpeel	RO43-1	14.1	37°3'14.02"N	80°1'14.24"W
	RO43-2	8.4	37°3'14.42"N	80°1'20.79"W
	RO43-2A	8.7	37°3'19.75"N	80°1'18.86"W
	RO43-3	12.7	37°3'19.8"N	80°1'25.83"W
	RO43-4	5.8	37°2'59.45"N	80°1'9.36"W
	RO43-5	17.3	37°2'56.33"N	80°0'57.83"W
	RO43-5A	28.3	37°3'4.7"N	80°0'53.07"W
Ronald Walker	RO46-6	15.6	36°51'12.87"	79°43'41.29"
	RO46-8A	3.2	36°51'11.03"	79°43'31.31"
	RO46-8B	20.9	36°51'5.76"	79°43'22.83"
	RO46-8C	8.9	36°50'52.51"	79°43'22.15"
	RO46-8D	23.5	36°50'57.23"	79°43'28.87"
	RO46-8E	10.7	36°50'55.66"	79°43'39.87"
	RO46-8F	3.9	36°50'59.62"	79°43'39.46"
	RO46-8G	2.3	36°50'57.50"	79°43'46.18"
	RO46-9	22.7	36°50'39.31"	79°43'7.15"
	RO46-9A	6.8	36°50'46.21"	79°43'8.44"
	RO46-10	6.2	36°50'42.19"	79°42'59.14"
	RO46-11	8.5	36°50'51.96"	79°42'48.62"
	RO46-12	50.1	36°51'4.26"	79°42'38.97"
	RO46-12A	21.7	36°51'2.52"	79°42'30.08"
	RO46-16	36.9	36°50'40.61"	79°42'25.0"
Buddy Campbell	RO47-1	17.5	36°53'19.95"N	79°39'5.62"W
	RO47-1A	59.4	36°53'26.97"N	79°39'16.33"W
	RO47-1B	15.4	36°53'22.87"N	79°39'38.87"W

CHA

Farmer	Field	Total Acres	Latitude	Longitude
	RO47-2	54.8	36°53'16.6N	79°38'42.93"W
	RO47-3	19.6	36°52'54.33"N	79°38'38.33"W
	RO47-4	42.0	36°52'21.59"N	79°38'30.59"W
	RO47-4A	6.9	36°52'20.15"N	79°38'42.78"W
	RO47-5	67.5	36°52'1.64"N	79°38'34.33"W
	RO47-6	31.5	36°53'35.37"N	79°39'2.17"W
	RO47-7	22.0	36°53'5.73"N	79°39'45.58"W
	RO47-8	8.3	36°53'4.39"N	79°39'56"W
	RO47-9	13.4	36°53'10.72"N	79°39'53.65"W
Robert Mills - MC Cattle	RO49-1	18.6	36°52'26"N	79°38'41"W
	RO49-2	26.5	36°52'35.66"N	79°38'54.57"W
	RO49-3	7.8	36°52'37.71"N	79°38'47.06"W
David Mitchell	RO60-1	18.6	36°50'21.85"N	79°46'40.1"W
	RO60-2	38.9	36°50'33.61"N	79°46'35.97"W
	RO60-3	11.0	36°50'27.8"N	79°46'50.45"W
	RO60-4	41.5	36°50'27.89"N	79°47'1.12"W
	RO60-4A	5.8	36°50'38.68"N	79°46'45.29"W
	RO60-5	8.7	36°50'35.24"N	79°47'7.6"W
	RO60-6	10.9	36°50'25.53"N	79°47'11.42"W
	RO60-7	11.5	36°50'25.60"N	79°47'17.86"W
	RO60-8	28.5	36°50'16.74"N	79°47'24.32"W
	RO60-9	14.4	36°50'10.53"N	79°47'19.89"W
	RO60-10	16.3	36°50'22.51"N	79°47'31.95"W
	RO60-12	26.8	36°51'2.95"N	79°45'6.95"W
	RO60-13	49.4	36°51'4.71"N	79°44'41.71"W
	RO60-14	20.0	36°51'2.93"N	79°44'32.11"W
Lawrence Motley	RO61-2	18.7	36°53'41.99"N	79°44'32.55"W
	RO61-5	4.8	36°53'56.69"N	79°44'27.62"W
	RO61-6	12.3	36°53'46.57"N	79°44'25.17"W
	RO61-7	9.8	36°53'31.24"N	79°44'19.75"W
	RO61-8	12.0	36°53'35.26"N	79°44'12.95"W
Issac Cockfield	RO62-1	6.4	36°53'23.68"W	79°44'29.28"W
	RO62-2	7.0	36°53'23.83"N	79°44'21.57"W
	RO62-3	6.0	36°53'18.01"N	79°44'18.08"W
	RO62-4	29.5	36°53'30.6"N	79°44'32.11"W
Preston Belcher	RO63-1	29.4	36°53'37.18"N	79°41'14.84"W
	RO63-2	7.3	36°53'42.34"N	79°41'9.91"W
	RO63-3	18.5	36°53'53.31"N	79°41'9.32"W
	RO63-4	3.6	36°53'57.56"N	79°41'20.42"W
	RO63-5	17.5	36°53'42.29"N	79°40'54.05"W
	RO63-6	19.4	36°53'51.64"N	79°40'45.88"W
	RO63-7	5.8	36°53'58.7"N	79°40'48.7"W

CHA

Farmer	Field	Total Acres	Latitude	Longitude
	RO63-8	8.6	36°53'53.45"N	79°41'2.54"W
Buren Mack	RO64-1	31.8	36°54'45.22"	79°49'59.06"
	RO64-2	16.1	36°56'11.32N	79°43'19.73"W
	RO64-3	34.3	36°56'4.58"N	79°43'20.3"W
	RO64-4	43.7	37°1'7.19"N	79°41'55.2"W
George Barnhart	RO65-1	41.4	37°4'37.27"N	79°54'2.56"W
Linn Baker	RO66-1	26.8	37°4'34.9"N	79°47'4.96"W
	RO66-2	10.6	37°4'26.15"N	79°47'1.5"W
Marshall Flora	RO67-1	49.0	37°5'36.44"N	79°54'12.48"W
Bryan Matthews	RO68-3	70.4	37°1"32.35"N	79°58'16.83"W
	RO68-4	52.4	37°1'12.03"N	79°58'6.66"W
David Robertson	RO69-1	13.7	36°57'56.13"N	79°45'28.33"W
	RO69-2	14.0	36°58'5.05"N	79°45'34.76"W
	RO69-3	13.7	36°58'3.95"N	79°45'47.72"W
	RO69-4	12.5	36°0'18.43"N	79°44'40.81"W
	RO69-5	21.9	36°0'25.15"N	79°44'43.04"W
	RO69-6	34.2	36°0'15.18"N	79°42'16.63"W
	RO69-7	7.1	36°0'14.95"N	79°42'5.93"W
	RO69-8	5.9	36°0'23.2"N	79°42'14.3"W
Thomas Robertson	RO70-1	8.3	36°59'1.48"N	79°46'24.16"W
	RO70-2	17.5	36°58'54.09"N	79°46'21.91"W
	RO70-3	4.2	36°59'41.22"N	79°44'20.48"W
	RO70-4	8.2	36°59'51.31"N	79°44'12.89"W
	RO70-5	12.8	36°59'54.61"N	79°44'19.64"W
	RO70-6	13.2	37°0'11.92"N	79°44'7.58"W
	RO70-7	3.3	37°0'25.19"N	79°44'8.58"W
	RO70-8	12.7	37°0'17.92"N	79°44'27.78"W
Jean Flora Capps	RO71-1	21.5	37°2'34.84"N	80°4'46.86"W
Kenneth Hatchett	RO 72-1	40.1	36 50' 39.53"	79 42' 37.13"
	RO 72-2	43.7	36 51' 43.64"N	79 42' 08.45"W
	RO 72-3	6.4	36 52' 01.06"N	79 42' 05.92"W
	RO 72-4	8.4	36 52' 03.93"N	79 42' 15.92"W
	TOTALS	**3,115.4**		

CHA

BEDFORD COUNTY LAND APPLICATION SUMMARY
Attachment C.2

Farmer	Field	Total Acres	Latitude	Longitude
Woolford	RO 50-2	20.4	37 10' 26.65"N	79 26' 38.08"W
	RO 50-5	92.5	37 10' 14.39"N	79 26' 16.68"W
	RO 50-6	21.3	37 10' 10.04"N	79 26' 25.12"W
	RO 50-9	28.4	37 10' 17.56"N	79 26' 8.21"W
Watson	RO 25-3	10.2	37 12' 9.03"N	79 36' 34.67"W
Wagner	RO 45-1	19.7	37 9' 34.32"N	79 31' 3.09"W
	45-2	7.0	37 9' 49.28"N	79 31' 0.71"W
	45-7	6.3	37 5' 40.90"N	79 31' 15.69"W
	45-8	13.6	37 5' 45.20"N	79 31' 5.42"W
	45-9	7.2	37 5' 29.35"N	79 31' 4.21"W
	45-10	3.2	37 5' 35.99"N	79 31' 0.31"W
	45-11	5.6	37 5' 28.27"N	79 30' 52.49"W
	45-12	69.6	37 5' 39.63"N	79 30' 48.52"W
	45-13A	9.1	37 5' 55.40"N	79 31' 1.63"W
	45-13B	19.1	37 5' 59.32"N	79 30' 46.23"W
	45-15A	6.0	37 6' 3.16"N	79 31' 1.01"W
	45-15B	6.1	37 6' 7.45"N	79 30' 58.24"W
	45-16	11.2	37 9' 19.79"N	79 31' 2.14"W
	45-17	45.3	37 9' 10.54"N	79 31' 6.42"
	45-18	29.4	37 9' 12.81"N	79 30' 55.19W
	45-19	21.4	37 9' 39.89"N	79 35' 49.21"W
	45-20	6.2	37 9' 51.74"N	79 35' 22.29"W
	45-21	32.6	37 9' 58.28"N	79 35' 32.74"W
	45-22	29.5	37 9' 45.45"N	79 35' 39.51"W
	45-48	35.5	37 9' 56.33"N	79 35' 42.59"W
	45-23	27.8	37 6' 6.65"N	79 29' 53.56"W
	45-24	9.1	37 5' 57.46"N	79 29' 45.98"W
	45-25	27.2	37 5' 59.99"n	79 29' 39.35"W
	45-28	16.5	37 8' 19.33"N	79 31' 31.84"W
	45-29	5.5	37 8' 18.92"N	79 31' 20.95"W
	45-30	11.2	37 8'12.57"N	79 31' 15.70"W
	45-31	8.6	37 8' 7.57"N	79 31' 32.85"W
	45-32	4.6	37.6' 38.41"N	79 30' 54.79"W
	45-33	16.4	37 6' 41.17"N	79 30' 58.66"W
	45-34A	4.2	37 10' 9.13"N	79 36' 17.84"W
	45-34B	26.7	37 10' 9.48"N	79 36' 11.62"W
	45-35	53.5	37 10' 2.62"N	79 36' 8.05"W
	45-37	0.0	37 9' 58.88"N	79 37' 0.92"W
	" " "	18.2	37 9' 58.88"N	79 37' 0.92"W
	45-41	26.4	37 9' 53.06"N	79 37' 13.56"W
	45-42	11.9	37 10' 5.49"N	79 37' 22.43"W

Farmer	Field	Total Acres	Latitude	Longitude
	45-43	21.5	17 10' 9.25"N	79 37' 30.20"W
	45-44	2.9	37 10' 9.42"N	79 37' 10.13"W
	45-45	15.4	37 10' 21.95"N	79 37' 19.20"W
	45-47	16.0	37 10' 29.56"N	79 37' 7.77"W
	45-49	3.0	37 12' 26.39"N	79 36' 31.87"W
	45-52	17.1	37 12' 27.41"N	79 36' 46.29"W
	45-53	8.5	37 12' 5.08"N	79 37' 3.66"W
	45-54	746.0	37 12' 15.04"N	79 37' 3.13"W
Preston	RO 44-1	20.1	37 9' 17.77"W	79 29' 47.79"W
	RO 44-2	9.1	37 9' 7.39"N	79 29' 57.19"W
	RO 44-3	2.3	37 9' 11.82"N	79 30' 0.52"W
	RO 44-4	4.1	37 9' 15.97"N	79 29' 57.30"W
	RO 44-6	29.3	37 9' 35.19"N	79 30' 44.93"W
	RO 44-7	34.0	37 9' 48.80"N	79 30" 29.29"W
	RO 44-10	79.0	37.9' 27.80"N	79 30' 38.82"W
	RO 44-11	58.8	37 9' 16.31"N	79 30' 17.06"W
	RO 44-12	12.0	37 9' 40.09"N	79 29' 34.51"W
	RO 44-13	29.5	37 9' 46.44"N	79 29' 24.08"W
	RO 44-14	22.0	37 9' 53.89"N	79 29' 39.44"W
Robertson	RO 27-6	24.6	37 12' 52.55"N	79 36' 37.99"W
Sheets	RO 54-1	6.6	37 12' 4.09"N	79 36' 30.13"W
	RO 54-2	4.8	37 12' 6.08"N	79 36' 23.57"W
	RO 54-6	7.4	37 12' 1.31"N	79 36' 16.31"W
	RO 54-7	8.2	37 12'15.02"N	79 36' 15.75"W
	RO 54-8	5.3	37 12' 8.46"N	79 36' 5.37"W
	RO 54-9	1.8	37 12' 6.27"N	79 36' 5.27"W
	RO 54-10	1.8	37 12' 6.27"N	79 36' 5.27"W
	RO 54-11	7.7	37 12' 4.47"N	79 36' 8.04"W
	RO 54-13	7.9	37 12' 14.57"N	79 36' 23.92W
W Adams	RO 60-1	16.7	37 12' 27.34"N	79 31' 51.07"W
	RO 60-2	42.0	3712' 13.22"N	79 31' 44.80"W
	RO 60-5	17.8	37 12' 9.39"N	79 31' 52.57"W
L Baker	RO 59-1	13.0	37 8' 59.65"N	79 36' 59.94"W
	RO 59-2	11.5	37 8' 45.40"N	79 36' 49.61"W
	RO 59-3	32.2	37 8' 51.61"N	79 36' 43.84"W
	RO 59-4	21.2	37 8' 41.61"N	79 36' 38.04"W
	RO 59-5	9.3	37 8' 45.19"N	79 36' 33.05"W
K Howell	RO 57-2	3.1	37 6' 20.58"N	79 31' 9.52"W
	RO 57-6	8.3	37 6' 34.67"N	79 31' 5.05"W
	RO 57-7	12.7	37 6' 32.66"N	79 30' 58.68"W
	RO 57-7A	1.5		
	RO 57-8	4.2	37 6' 30.81"N	79 30' 54.84"W
	RO 57-9	6.3	37 6' 28.34"N	79 30' 52.73"W
	RO 57-10	1.9	37 6' 22.43"N	79 30' 55.89"W

Farmer	Field	Total Acres	Latitude	Longitude
	RO 57-14	4.6	37 6' 39.35"N	79 30' 40.92"W
	RO 57-15	4.0	37 6' 36.83"N	79 30' 33.71"W
	RO 57-17	19.2	37 6' 36.28"N	79 30' 26.60"W
	RO 57-18	16.0	37 6' 30.19"N	79 30' 32.02"W
Nance	RO 24-3	12.3	37 12' 58.45"N	79 35' 47.60"W
	RO 24-7	31.0	37 10' 13.52"N	79 35' 47.64"W
	RO 24-8	22.7	37 10' 5.05"N	79 35' 40.71"W
	RO 24-9	18.6	37 10' 5.12"N	79 35' 28.75"W
	RO 24-18	18.8	37 14' 15.76"N	79 29' 23.00"W
	RO 24-19	15.6	37 14' 9.57"N	79 29' 22.74"W
	RO 24-20	9.7	37 14' 30.16"N	79 29' 10.53"W
	RO 24-21	6.8	37 14' 26.50"N	79 29' 4.62"W
	RO 24-22	12.9	37 14' 25.26"N	79 29' 11.19"W
	RO 24-23	13.8	37 14' 21.01"N	79 29' 5.48"W
	RO 24-24	5.2	37 14' 15.49"N	79 28' 53.71"W
	RO 24-25	26.3	37 14' 13.24"N	79 28' 57.58"W
	RO 24-26	13.0	37 14' 9.36"N	79 28' 54.39"W
	RO 24-27	6.8	37 14' 6.20"N	79 28'54.57"W
D. Bays	RO 56-1	12.8	37 8' 39.42"N	79 29' 55.28"W
	RO 56-2	26.0	37 8' 32.63"N	79 29' 48.12"W
	RO 56-4	11.3	37 8' 36.36"N	79 29' 40.70"W
	RO 56-5	14.4	37 8' 22.95"N	79 29' 38.55"W
	RO 56-6	13.3	37 8' 30.43"N	79 29' 34.52"W
	RO 56-9	4.9	37 8' 26.59"N	79 29' 30.12"W
	RO 56-10	25.1	37 6' 58.78"N	79 33' 16.15"W
	RO 56-11	12.6	37 7' 9.42"N	79 33' 24.70"W
	RO 56-12	29.2	37 7' 9.39"N	79 33' 33.94"W
	RO 56-13	32.7	37 6' 39.63"N	79 33' 53.96"W
	RO 56-14	60.6	37 8' 46.34"N	79 32' 1.75"W
	RO 56-15	54.8	37 8' 11.88N	79 24' 11.15"W
L. Sanders	RO 55-1	20.1	37 8' 40.37"N	79 32' 58.17"W
	RO 55-2	22.2	37 8' 33.24"N	79 32' 33.17"W
	RO 55-3	22.6	37 8' 27.55"N	79 32' 34.41"W
	RO 55-5	35.0	37 8' 45.77"N	79 32' 45.03"W
	RO 55-11	14.9	37 8' 35.89"N	79 32' 11.50"W
L. Howell	RO 58-2	17.0	37 11' 12.58"N	79 26' 10.89"W
	RO 58-4	28.1	37 10' 57.64"N	79 25' 38.43"W
	RO 58-5	51.8	37 11' 13.39"N	79 25' 31.94"W
	RO 58-6	20.9	37 11' 2.54"N	79 25' 22.04"W
	RO 58.7	3.3	37 10' 55.93"N	79 25" 28.16"W
	TOTALS	**3,023.5**		

CHA

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

6. **Cumulative Loadings and Remaining Allotments.**

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? X Yes __No
If no, sewage sludge subject to the CPLRs may not be applied to this site.
If yes, provide the following information:
Permitting authority: Virginia Department of Health
Contact person: Dr. C.M. Sawyer, P.E.
Phone: (804) 786-1755

b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? __Yes X No If no, skip the rest of Question 6. If yes, answer questions c - e.

c. Site size, in hectares: N/A (one hectare = 2.471 acres)

d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.
Facility name: N/A
Facility contact:
Title:
Phone: ( )
Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

	Cumulative loading	Allotment remaining
Arsenic	N/A	
Cadmium	N/A	
Copper	N/A	
Lead	N/A	
Mercury	N/A	
Nickel	N/A	
Selenium	N/A	
Zinc	N/A	

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. **Sludge Characterization.** Use the table below or a separate attachment, provide at least one analysis for each parameter. N/A

PCBs (mg/kg)
pH (S. U.)
Percent Solids (%)
Ammonium Nitrogen (mg/kg)
Nitrate Nitrogen (mg/kg)
Total Kjeldahl Nitrogen (mg/kg)
Total Phosphorus (mg/kg)
Total Potassium (mg/kg)
Alkalinity as $CaCO_3^*$ (mg/kg)

*Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent $CaCO_3$.

8. **Storage Requirements.** N/A

Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.

Proposed sludge storage facilities must also provide the following information:

a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line.
   1) Water wells, abandoned or operating
   2) Surface waters
   3) Springs
   4) Public water supply(s)
   5) Sinkholes
   6) Underground and/or surface mines
   7) Mine pool (or other) surface water discharge points
   8) Mining spoil piles and mine dumps
   9) Quarry(s)
   10) Sand and gravel pits
   11) Gas and oil wells
   12) Diversion ditch(s)
   13) Agricultural drainage ditch(s)
   14) Occupied dwellings, including industrial and commercial establishments
   15) Landfills or dumps
   16) Other unlined impoundments
   17) Septic tanks and drainfields
   18) Injection wells
   19) Rock outcrops

b. A topographic map of sufficient detail to clearly show the following information:
   1) Maximum and minimum percent slopes
   2) Depressions on the site that may collect water
   3) Drainageways that may attribute to rainfall run-on to or runoff from this site
   4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding

c. Data and specifications for the storage facility lining material.

d. Plan and cross-sectional views of the storage facility.

e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.

9. **Land Area Requirements**. Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings (CPLR sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application. N/A

10. **Landowner Agreement Forms**. Provide a properly completed Sewage Sludge Application Agreement Form (attached) for each landowner if sewage sludge is to be applied onto land not owned by the applicant. N/A

11. **Ground Water Monitoring.**

Are any ground water monitoring data available for this land application site? __Yes __No

If "Yes", submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data. N/A

12. **Land Application Site Information.**

(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period) N/A

a. Provide a general location map for each county which clearly indicates the location of all the land application sites.

b. For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones.

c. In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U. S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U. S. Fish and Wildlife Service
Virginia Field Office
P. O. Box 480
White Marsh, VA 23183
TEL: (804)693-6694

Provide a copy of the notification letter with this application form.

d. Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)
Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.

1) Soil symbol
2) Soil series, textural phase and slope range
3) Depth to seasonal high water table
4) Depth to bedrock
5) Estimated soil productivity group (for the proposed crop rotation)

Item e - h are required for sites receiving frequent application of sewage sludge

e. In order to verify the information provided in item d, characterize the soil at each land application site. Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:

1) Soil symbol
2) Soil series, textural phase and slope range
3) Depth to seasonal high water table
4) Depth to bedrock
5) Estimated soil productivity group (for the proposed crop rotation)

f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item e. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)
Soil pH (std. units)
Cation Exchange Capacity (meq/100g)
Total Nitrogen (ppm)
Organic Nitrogen (ppm)
Ammonia Nitrogen (ppm)
Nitrate Nitrogen (ppm)
Available Phosphorus (ppm)
Exchangeable Potassium (mg/100g)
Exchangeable Sodium (mg/100g)
Exchangeable Calcium (mg/100g)
Exchangeable Magnesium (mg/100g)
Arsenic (ppm)
Cadmium (ppm)
Copper (ppm)
Lead (ppm)
Mercury (ppm)
Molybdenum (ppm)
Nickel (ppm)
Selenium (ppm)
Zinc (ppm)
Manganese (ppm)
Particle Size Analysis or
USDA Textural Estimate (%)

g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.

h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

SEWAGE SLUDGE APPLICATION AGREEMENT

This sewage sludge application agreement is made on this date _____ between _____, referred to here as "landowner", and _____, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of sewage sludge on landowner's land in amounts and in a manner authorized by VPDES permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of sewage sludge will be beneficial in providing fertilizer and soil conditioning to the property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health, the following site restrictions must be adhered to when sewage sludge receives Class B treatment for pathogen reduction:

1. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge;

2. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil;

3. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil;

4. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge;

5. Animals shall not be grazed on the land for 30 days after application of sewage sludge;

6. Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board;

7. Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge;

8. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.

9. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of sewage sludge borne cadmium equal to or exceeding 0.5 kilograms/hectare (0.45 pounds/acre).

Permittee agrees to notify landowner or landowner's designee of the proposed schedule for sewage sludge application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner:	Permittee:
_____	_____
Signature	Signature
_____	_____
Mailing Address	Mailing Address

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1. Information on Active Sewage Sludge Units. N/A

a. Unit name or number:

b. Unit location

i. Street or Route#:
County:
City or Town: _____ State: _____ Zip:

ii. Latitude:_____ Longitude:
Method of latitude/longitude determination
_____ USGS map _____ Filed survey _____ Other

c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period:
_____dry metric tons.

e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit:
_____ dry metric tons.

f. Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7} cm/sec? __Yes __No If yes, describe the liner or attach a description.

g. Does the active sewage sludge unit have a leachate collection system? __Yes __No
If "Yes", describe the leachate collection system or attach a description. Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:

h. If you answered "No" to either f or g, answer the following:
Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? __Yes __No If "Yes", provide the actual distance in meters:

i. Remaining capacity of active sewage sludge unit, in dry metric tons:_____ dry metric tons
Anticipated closure date for active sewage sludge unit, if known:_____ (MM/DD/YYYY)
Provide with this application a copy of any closure plan developed for this active sewage sludge unit.

2. Sewage Sludge from Other Facilities. N/A

Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? __Yes __No
If "Yes", provide the following information for each such facility, attach additional sheets as necessary.

a. Facility name:

b. Facility contact:
Title:
Phone: ( )

c. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

d. List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the facility's sewage sludge management practices:

Permit Number:	Type of Permit:

e. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?
__Class A __Class B __Neither or unknown

f. Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge:

g. Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?
___ Option 1 (Minimum 38 percent reduction in volatile solids)
___ Option 2 (Anaerobic process, with bench-scale demonstration)
___ Option 3 (Aerobic process, with bench-scale demonstration)
___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
___ Option 5 (Aerobic processes plus raised temperature)
___ Option 6 (Raise pH to 12 and retain at 11.5)
___ Option 7 (75 percent solids with no unstabilized solids)
___ Option 8 (90 percent solids with unstabilized solids)
___ None or unknown

h. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge:

i. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in e - h above:

3. Vector Attraction Reduction. N/A

a. Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?
___ Option 9 (Injection below land surface)
___ Option 10 (Incorporation into soil within 6 hours)
___ Option 11 (Covering active sewage sludge unit daily)

b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge:

4. Ground Water Monitoring. N/A

a. Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water monitoring data otherwise available for this active sewage sludge unit? ___Yes ___No
If "Yes", provide a copy of available ground water monitoring data. Also provide a written description of the well locations, the approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

b. Has a ground water monitoring program been prepared for this active sewage sludge unit?
___Yes ___No If "Yes", submit a copy of the ground water monitoring program with this application.

c. Have you obtained a certification from a qualified ground water scientist that the aquifer below the active sewage sludge unit has not been contaminated? ___Yes ___No
If "Yes", submit a copy of the certification with this application.

5. Site-Specific Limits. N/A

Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?
___Yes ___No If "Yes", submit information to support the request for site-specific pollutant limits with this application.

PUBLIC NOTICE BILLING INFORMATION FORM

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in accordance with 9 VAC 25-31-290.C.2:

Newspaper Name: **The Roanoke Times**

Agent/Department to be billed: **Western Virginia Water Authority**

Owner: **Western Virginia Water Authority**

Applicant's Address: **1502 Brownlee Avenue, S.E.**

Roanoke, VA 24014

Agent's Telephone No: **(540) 853-1283**

Authorizing Agent: Michael T. McEvoy
Signature

Michael T. McEvoy
Printed Name

Executive Director, Wastewater Services
Title

Date 8-21-2013

Facility Name: **Western Virginia Water Authority Water Pollution Control Plant**

Permit No. **VA0025020**

Please return to:

Becky L. France
Department of Environmental Quality
3019 Peters Creek Road
Roanoke, VA 24019
Fax No. (540) 562-6725

REIC

REIC Laboratories, Inc.
PO Box 286
Beaver, WV 25813
TEL: 304.255.2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

3029-C Peters Creek Road
Roanoke, VA 24019
TEL: 540.777.1276

101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.777.1276

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Thursday, April 11, 2013

Ms. Janis Richardson
WESTERN VA WATER WWTP
1502 BROWNLEE AV SE
ROANOKE, VA 24014

TEL: (540) 853-1517
FAX: (540) 853-1307

RE: VPDES PERMIT APPLICATION
Work Order #: 1304588

Dear Ms. Janis Richardson:

REI Consultants, Inc. received 5 sample(s) on 4/4/2013 for the analyses presented in the following report.

Sincerely,

Joy Castle
Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1304588

Date Reported: 4/11/2013

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
*: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, FLDOH (NELAC) E87958, VADCLS(VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, FLDOH (NELAC) E871055, VADCLS(VELAP) 460149
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094

REI Consultants, Inc. - Analytical Report

WO#: 1304588

Date Reported: 4/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	4/4/2013 10:50:00 AM
Project:	VPDES PERMIT APPLICATION	**Date Received:**	4/4/2013 8:25:25 PM
Lab ID:	1304588-01A	**Matrix:**	Waste Water
Client Sample ID:	GRAB 1	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV	NA		NA			
OIL and GREASE		**Method: E1664A**					**Analyst: MC**
Oil & Grease	ND	NA	5.0	NA		mg/L	4/9/2013 9:00 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304588

Date Reported: 4/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	4/4/2013 11:05:00 AM
Project:	VPDES PERMIT APPLICATION	**Date Received:**	4/4/2013 8:25:25 PM
Lab ID:	1304588-02A	**Matrix:**	Waste Water
Client Sample ID:	GRAB 2	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV	NA		NA			
OIL and GREASE		**Method: E1664A**					**Analyst: MC**
Oil & Grease	ND	NA	5.0	NA		mg/L	4/9/2013 9:00 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304588

Date Reported: 4/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	4/4/2013 11:20:00 AM
Project:	VPDES PERMIT APPLICATION	**Date Received:**	4/4/2013 8:25:25 PM
Lab ID:	1304588-03A	**Matrix:**	Waste Water
Client Sample ID:	GRAB 3	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV	NA		NA			
OIL and GREASE		**Method: E1664A**					**Analyst: MC**
Oil & Grease	ND	NA	5.0	NA		mg/L	4/9/2013 9:00 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304588

Date Reported: 4/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	4/4/2013 11:35:00 AM
Project:	VPDES PERMIT APPLICATION	**Date Received:**	4/4/2013 8:25:25 PM
Lab ID:	1304588-04A	**Matrix:**	Waste Water
Client Sample ID:	GRAB 4	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV	NA		NA			
ACROLEIN BY E624		**Method: E624**					**Analyst: RB**
Acrolein	ND	NA	10	NA		µg/L	4/9/2013 2:46 PM
Notes:							
The holding time was exceeded for Acrolein.							
VOLATILE ORGANIC COMPOUNDS		**Method: E624**					**Analyst: RB**
Benzene	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Bromodichloromethane	3.3	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Bromoform	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Bromomethane	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Carbon tetrachloride	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Chlorobenzene	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Chloroethane	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Chloroform	14.9	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Chloromethane	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Dibromochloromethane	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
1,1-Dichloroethene	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
trans-1,2-Dichloroethene	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
1,2-Dichloropropane	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
cis-1,3-Dichloropropene	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
trans-1,3-Dichloropropene	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Ethylbenzene	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Methylene chloride	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
1,1,2,2-Tetrachloroethane	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Tetrachloroethene	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Toluene	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
1,1,1-Trichloroethane	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
1,1,2-Trichloroethane	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Trichloroethene	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Trichlorofluoromethane	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Vinyl chloride	ND	NA	1.0	NA		µg/L	4/9/2013 2:46 PM
Surr: 1,2-Dichloroethane-d4	109	NA	73.2-133	NA		%REC	4/9/2013 2:46 PM
Surr: Toluene-d8	97.5	NA	71-132	NA		%REC	4/9/2013 2:46 PM
Surr: 4-Bromofluorobenzene	96.7	NA	74.2-129	NA		%REC	4/9/2013 2:46 PM
VOLATILE ORGANIC COMPOUNDS-624		**Method: E624**					**Analyst: RB**
2-Chloroethyl vinyl ether	ND	NA	5.0	NA		µg/L	4/9/2013 2:46 PM
Acrylonitrile	ND	NA	10	NA		µg/L	4/9/2013 2:46 PM
Surr: 1,2-Dichloroethane-d4	109	NA	73.2-133	NA		%REC	4/9/2013 2:46 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304588

Date Reported: 4/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	4/4/2013 11:35:00 AM
Project:	VPDES PERMIT APPLICATION	**Date Received:**	4/4/2013 8:25:25 PM
Lab ID:	1304588-04A	**Matrix:**	Waste Water
Client Sample ID:	GRAB 4	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Surr: Toluene-d8	97.5	NA	71-132	NA		%REC	4/9/2013 2:46 PM
Surr: 4-Bromofluorobenzene	96.7	NA	74.2-129	NA		%REC	4/9/2013 2:46 PM
OIL and GREASE		**Method: E1664A**					**Analyst: MC**
Oil & Grease	ND	NA	5.0	NA		mg/L	4/10/2013 9:00 AM
PHENOLICS		**Method: E420.1**					**Analyst: BA**
Phenolics	ND	NA	0.010	NA		mg/L	4/10/2013 12:30 PM
Cyanide		**Method: E335.4**					**Analyst: JJ**
Cyanide, Total	ND	NA	0.020	NA		mg/L	4/8/2013 10:48 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304588

Date Reported: 4/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	4/4/2013 12:00:00 PM
Project:	VPDES PERMIT APPLICATION	**Date Received:**	4/4/2013 8:25:25 PM
Lab ID:	1304588-05A	**Matrix:**	Waste Water
Client Sample ID:	COMP	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV	NA		NA			
HARDNESS		**Method: SM2340 B**			**E200.2**		**Analyst: LF**
Hardness, Total (As CaCO3)	192	NA	1.00	NA		mg/L	4/8/2013 4:40 PM
SEMIVOLATILE ORGANIC COMPOUNDS		**Method: E625**			**SW3510**		**Analyst: JD**
Acenaphthene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Acenaphthylene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Anthracene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Benzidine	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Benzo(a)anthracene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Benzo(a)pyrene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Benzo(b)fluoranthene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Benzo(g,h,i)perylene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Benzo(k)fluoranthene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Bis(2-chloroethoxy)methane	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Bis(2-chloroethyl)ether	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Bis(2-chloroisopropyl)ether	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Bis(2-ethylhexyl)phthalate	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
4-Bromophenyl phenyl ether	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Butyl benzyl phthalate	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
4-Chloro-3-methylphenol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
2-Chloronaphthalene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
2-Chlorophenol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
4-Chlorophenyl phenyl ether	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Chrysene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
o-Cresol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
m,p-Cresol	ND	NA	0.0206	NA		mg/L	4/10/2013 12:20 AM
Dibenzo(a,h)anthracene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Di-n-butyl phthalate	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
1,2-Dichlorobenzene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
1,3-Dichlorobenzene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
1,4-Dichlorobenzene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
3,3'-Dichlorobenzidine	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
2,4-Dichlorophenol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Diethyl phthalate	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Dimethyl phthalate	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
2,4-Dimethylphenol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
4,6-Dinitro-2-methylphenol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
2,4-Dinitrophenol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304588

Date Reported: 4/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	4/4/2013 12:00:00 PM
Project:	VPDES PERMIT APPLICATION	**Date Received:**	4/4/2013 8:25:25 PM
Lab ID:	1304588-05A	**Matrix:**	Waste Water
Client Sample ID:	COMP	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
2,4-Dinitrotoluene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
2,6-Dinitrotoluene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Di-n-octyl phthalate	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
1,2-Diphenylhydrazine	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Fluoranthene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Fluorene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Hexachlorobenzene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Hexachlorobutadiene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Hexachlorocyclopentadiene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Hexachloroethane	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Indeno(1,2,3-cd)pyrene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Isophorone	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Naphthalene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Nitrobenzene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
2-Nitrophenol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
4-Nitrophenol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
N-Nitrosodimethylamine	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
N-Nitrosodiphenylamine	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
N-Nitrosodi-n-propylamine	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Pentachlorophenol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Phenanthrene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Phenol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Pyrene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
1,2,4-Trichlorobenzene	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
2,4,6-Trichlorophenol	ND	NA	0.0103	NA		mg/L	4/10/2013 12:20 AM
Surr: 2-Fluorophenol	44.9	NA	3.97-110	NA		%REC	4/10/2013 12:20 AM
Surr: Phenol-d5	32.8	NA	19-110	NA		%REC	4/10/2013 12:20 AM
Surr: 2,4,6-Tribromophenol	84.2	NA	74.8-110	NA		%REC	4/10/2013 12:20 AM
Surr: Nitrobenzene-d5	91.6	NA	66.4-110	NA		%REC	4/10/2013 12:20 AM
Surr: 2-Fluorobiphenyl	79.6	NA	64.5-110	NA		%REC	4/10/2013 12:20 AM
Surr: 4-Terphenyl-d14	55.2	NA	72.6-110	NA	S	%REC	4/10/2013 12:20 AM
ANIONS by ION CHROMATOGRAPHY		**Method: SM4110B**					**Analyst: CF**
Nitrogen, Nitrate-Nitrite	9.10	NA	1.00	NA		mg/L	4/5/2013 10:51 AM
AMMONIA NITROGEN		**Method: E350.1**					**Analyst: JJ**
Nitrogen, Ammonia (As N)	ND	NA	0.10	NA		mg/L	4/5/2013 3:50 PM
TOTAL DISSOLVED SOLIDS		**Method: SM2540 C**					**Analyst: SF**
Total Dissolved Solids	359	NA	10	NA		mg/L	4/6/2013 11:16 AM

CHAIN OF CUSTODY RECORD

v8-0612 REIC use ONLY CLIENT ID WES113 DATE _____ SHEET _____

REIC
Research Environmental & Industrial Consultants, Inc.
MAIN LABORATORY & CORPORATE HEADQUARTERS:
P.O. Box 286 · 225 Industrial Park Rd, Beaver, WV 25813
800-999-0105 · 304-255-2500 · www.reiclabs.com

MID-OHIO VALLEY Service Center
101 17th Street
Ashland, KY 41101
606-393-5027

SHENANDOAH Service Center
1557 Commerce Rd., Ste 201
Verona, VA 24482
540-248-0183

ROANOKE Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

MORGANTOWN Service Center
16 Commerce Drive
Westover, WV 26501
304-241-5861

Client: WWA PO # _____

Contact Person JANIS RICHARDSON Phone 540-0863-1517

Address 1502 BROWNLEE AVE SE City ROANOKE State VA Zip 24014

Billing Address (if different) QUOTE 1706

City _____ State _____ Zip _____

Site ID & State _____ Project ID _____ Sampler Matt Voss

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME

(⊙) NORMAL

RUSH TURNAROUND

( ) 5 DAY ( ) 3 DAY ( ) 2 DAY ( ) 1 DAY

*Rush work needs prior laboratory approval and will incur additional charges

ANALYSIS & METHOD REQUESTED

- TTO 624
- 1664 OG
- CYANIDE
- TOTAL PHENOLICS
- TTO 625
- NH3 NO2NO3
- TDS
- HARDNESS, (METALS ON HOLD)

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	0/1	1/2 or 6	6	5		6	3	0	7
GRAB 1		4-4-13 / 10:50	W Water	Grab	X	X	X	X					
GRAB 2		4-4-13 / 11:05	W Water	Grab	X	X	X	X					
GRAB 3		4-4-13 / 11:20	W Water	Grab	X	X	X	X					
GRAB 4		4-4-13 / 11:35	W Water	Grab	X	X	X	X					
			Choose	Choose									
COMP		4-4-13 / 12:00	W Water	Comp						X	X	X	X
Comp Start 4-3-13 12:00			Choose	Choose									
Comp End 4-4-13 12:00			Choose	Choose									
			Choose	Choose									

ENTER PRESERVATIVE CODE:

0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA
8 Ascorbic Acid

COMMENTS:

All analytical requests are subject to REIC's Standard Terms and Conditions.

Temperature at arrival 1.0 °C ICED? Y ✓ N ___

1		2		3	
Relinquished by (signature)	Date/Time 4-4-13 1415	Relinquished by (signature)	Date/Time	Relinquished by (signature)	Date/Time
Received by (signature)	Date/Time 4-4-13 5	Received by (signature)	Date/Time	Received by (signature)	Date/Time

REI Consultants, Inc.

Auto Sampler Records (Rev. 3-2010)

Client Sample Name: WWA

Site Location: _____

Sampling Event: _____

Auto Sampler Program	**Composite Mode**
Beginning Date	4-3-13
Beginning Time	12:00
Ending Date	4-4-13
Ending Time	12:00
Addition of Ice	1 bag
Sample Retrieval	
Date	4-4-13
Time	12:00
Number of samples taken	96 of 96
Ice Remaining (yes/no)	Yes
Temperature of Ice	
Date	4-4-13
Time	12:00
Initials	MV

Comments: _____

HRSD
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04/04/13 - Western Virginia Water Authority

This analytical report contains 5 pages

Janis Richardson
Environmental Programs Coordinator
Western Virginia Water Authority
1502 Brownlee Avenue, SE
Roanoke, VA 24014

Janis.Richardson@WesternVaWater.org

Date Sent: **04/23/13**

HRSD CEL, Central Environmental Laboratory is VELAP/NELAC accredited by DCLS, the Division of Consolidated Laboratory Services.

VA Laboratory ID#: 460011
Effective Date: June 15, 2012
Expiration Date: June 14, 2013
Certificate # 1612

Analytical test results meet all requirements of VELAP/NELAC unless otherwise noted under the analysis.

Test results relate only to the sample tested. Clients should be aware that a critical step in chemical or microbiological analysis is the collection of the sample.

If you have any questions concerning this report, please do not hesitate to contact
Danny Barker, TSD Environmental Scientist at (757) 460-4247
dbarker@hrsd.com
Robin Parnell, CEL Laboratory Manager at (757) 460-4203.
rparnell@hrsd.com
Cindi Reno, CEL Administrative Assistant at (757) 460-4205.
creno@hrsd.com

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CENTRAL ENVIRONMENTAL LABORATORY
ANALYTICAL REPORT

Project: Western Virginia Water Authority
Customer Sample ID: Field Blank
Project Code: WVWA
Sample Point: FB
Sample Date: 04/04/13

Analyte	Method	Unit	Result	Report Limit[1]	Analyst	Analysis Date	Analysis Time
Antimony Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	04/11/13	11:33
Arsenic Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	04/11/13	11:33
Beryllium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	04/11/13	11:33
Cadmium Total	EPA 200.8	ug/L	<0.05	0.05	KWILLI	04/11/13	11:33
Chromium Total	EPA 200.8	ug/L	<1.00	1.00	KWILLI	04/11/13	11:33
Copper Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	04/11/13	11:33
Lead Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	04/11/13	11:33
Mercury Total	EPA 245.1	ug/L	<0.10	0.10	SWILLI	04/12/13	12:33
Nickel Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	04/11/13	11:33
Selenium Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	04/11/13	11:33
Silver Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	04/11/13	11:33
Thallium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	04/11/13	11:33
Zinc Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	04/11/13	11:33

Notes
[1] *Report Limit is lowest concentration at which quantitation is demonstrated.*

Authorization: _____
Lab Manager / QA Manager

Date: 4/19/13

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CENTRAL ENVIRONMENTAL LABORATORY
ANALYTICAL REPORT

Project: Western Virginia Water Authority
Customer Sample ID: Final Effluent
Project Code: WVWA
Sample Point: FNE
Sample Date: 04/04/13

Analyte	Method	Unit	Result	Report Limit[1]	Analyst	Analysis Date	Analysis Time
Antimony Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	04/11/13	11:39
Arsenic Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	04/11/13	11:39
Beryllium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	04/11/13	11:39
Cadmium Total	EPA 200.8	ug/L	<0.05	0.05	KWILLI	04/11/13	11:39
Chromium Total	EPA 200.8	ug/L	<1.00	1.00	KWILLI	04/11/13	11:39
Copper Total	EPA 200.8	ug/L	5.25	0.50	KWILLI	04/11/13	11:39
Lead Total	EPA 200.8	ug/L	0.34	0.10	KWILLI	04/11/13	11:39
Mercury Total	EPA 245.1	ug/L	<0.10	0.10	SWILLI	04/12/13	12:36
Nickel Total	EPA 200.8	ug/L	1.66	0.50	KWILLI	04/11/13	11:39
Selenium Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	04/11/13	11:39
Silver Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	04/11/13	11:39
Thallium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	04/11/13	11:39
Zinc Total	EPA 200.8	ug/L	21.6	1.0	KWILLI	04/11/13	11:39

Notes
[1] *Report Limit is lowest concentration at which quantitation is demonstrated.*

Authorization: _____
Lab Manager / QA Manager

Date: 4/19/13

CENTRAL ENVIRONMENTAL LABORATORY
QUALITY ASSURANCE REPORT
Level 1

CENTRAL ENVIRONMENTAL LABORATORY
QUALITY ASSURANCE REPORT
Level 1

Project: Western Virginia Water Authority
Project Code: WVWA
Sample Point: FNE
Sample Date: 04/04/13

Analytical Run Information	Sb	As	Be	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Tl	Zn
Method	200.8	200.8	200.8	200.8	200.8	200.8	200.8	245.1	200.8	200.8	200.8	200.8	200.8
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Limit of Detection (LOD)	0.22	0.06	0.01	0.006	0.04	0.09	0.01	0.03	0.08	0.12	0.05	0.03	0.24
Limit of Quantitation (LOQ)	1.0	1.0	0.10	0.05	1.00	0.50	0.10	0.10	0.50	0.50	0.10	0.10	1.00
Method Blank (MB)	<0.22	<0.06	<0.01	<0.006	<0.04	<0.09	0.02*	<0.03	<0.08	<0.12	<0.05	<0.03	<0.24
Total Metals													
Sample ID: WVWA FNE													
Matrix Spike Conc.								1.0					
MS Percent Recovery								94%					
MSD Percent Recovery								91%					
MS/MSD RPD								2%					

*Report Limit is lowest concentration at which quantitation is demonstrated. Values below report limit should not be used for compliance determination due to a high degree of uncertainty.

Validated By: _____ **Date:** 4/19/13

HRSD
Closing environmental gaps for a better Bay

CENTRAL ENVIRONMENTAL LABORATORY
1432 AIR RAIL AVENUE
VIRGINIA BEACH, VA 23455
TEL: 757-460-4214
FAX: 757-460-8686

CHAIN OF CUSTODY

PROJECT NAME/CODE: WWA

ANALYSES REQUESTED, CGN & NUMBER OF CONTAINERS

Project In Lims? Yes ____ No ____

CUSTOMER SAMPLE ID	HRSD Use Only PROJECT CODE	HRSD Use Only SAMPLE POINT	DATE	TIME	SAMPLED BY	Circle One MATRIX	Circle One SAMPLE TYPE	Total Metals (5)														HRSD Use Only Presv'd Checked	HRSD Use Only CONT. COUNT
Field Blank	WWA	FB	4/3/13	4/4/13 1400	LB/LW	L	C	1 ✓														✓	1
Effluent	WWA	FNE	↓	↓	LB/LW	L	C	1 ✓														✓	1

COMMENTS:
Delivered via ("Courier Service") - LB/LW 4/9/13

For Ground Water Use Only
Temp. Blank 1 = ____ °C
Temp. Blank 2 = ____ °C

Relinquished by / Signature	Lisa Wightman	Date/Time 04/08/13 1203
Received by / Signature	Amy Hite	Date/Time 04/08/13 1203
Relinquished by / Signature		Date/Time
Received by / Signature		Date/Time 4/9/13 0815
Relinquished by / Signature		Date/Time
Received by / Signature		Date/Time
Relinquished by / Signature		Date/Time
Received by / Signature		Date/Time

Temp. Requirement

Where required, submitted samples were transported in coolers maintained at ≤ 6 °C.

Yes ✓ No ____

Int LB/LW

***Preservatives**

- *Hg, Metals (pH<2 - HNO3) (Clean metals check in section)
- *O&G (pH<2 - HCl, check in section) & store ≤ 6 °C
- CN (pH>12 - NaOH) & store ≤ 6 °C
- *Sulfide (pH>9 - NaOH+ZnAc) & store ≤ 6 °C
- *Micro ($Na_2S_2O_3$ + EDTA) & store < 10 °C
- *COD, NUT, Phenols ($pH<2 - H_2SO_4$) & store ≤ 6 °C
- *TOC ($pH<2 - H_3PO_4$) & store ≤ 6 °C
- *BOD, TSS, TVSS, Turbidity, Surfactant, Sulfate store ≤ 6 °C
- *NUT Non Acidified, Conductivity, Organics store ≤ 6 °C
- *Cr (VI) (pH 9.3 - 9.7 - $(NH_4)_2SO_4$) & store ≤ 6 °C

All sample(s) met proper *preservation requirements. Yes ✓ No ____ Int LB/LW

Sample Type: C=Composite, G=Grab Matrix: L= Liquid , S = Solid CGN: Container Group Number

NOTE: ALL APPLICABLE INFORMATION MUST BE COMPLETED PRIOR TO ACCEPTANCE.

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1304588

Date Reported: 4/11/2013

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION

Test Code: 1664_HEM

Sample ID:	LCS-R301076	Samp Type:	LCS	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	301076	
Client ID:	LCSW	Batch ID:	R301076	TestNo:	E1664A			Analysis Date:	4/9/2013	SeqNo:	4454429	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Oil & Grease	36.2	5.0	40.0	0	90.5	77.9	114.1					

Sample ID:	LCSD-R301076	Samp Type:	LCSD	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	301076	
Client ID:	LCSS02	Batch ID:	R301076	TestNo:	E1664A			Analysis Date:	4/9/2013	SeqNo:	4454430	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Oil & Grease	36.8	5.0	40.0	0	92.0	77.9	114.1	36.2	1.6	20		

Sample ID:	MB-R301076	Samp Type:	MBLK	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	301076	
Client ID:	PBW	Batch ID:	R301076	TestNo:	E1664A			Analysis Date:	4/9/2013	SeqNo:	4454431	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Oil & Grease	ND	5.0										

Sample ID:	LCS-R301173	Samp Type:	LCS	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	301173	
Client ID:	LCSW	Batch ID:	R301173	TestNo:	E1664A			Analysis Date:	4/10/2013	SeqNo:	4456283	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Oil & Grease	34.7	5.0	40.0	0	86.8	77.9	114.1					

Sample ID:	LCSD-R301173	Samp Type:	LCSD	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	301173	
Client ID:	LCSS02	Batch ID:	R301173	TestNo:	E1664A			Analysis Date:	4/10/2013	SeqNo:	4456284	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Oil & Grease	35.7	5.0	40.0	0	89.2	77.9	114.1	34.7	2.8	20		

Sample ID:	MB-R301173	Samp Type:	MBLK	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	301173	
Client ID:	PBW	Batch ID:	R301173	TestNo:	E1664A			Analysis Date:	4/10/2013	SeqNo:	4456285	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Oil & Grease	ND	5.0										

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1304588

Date Reported: 4/11/2013

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION

Test Code: 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	301146
Client ID:	LCSW	Batch ID:	R301146	TestNo:	E624			Analysis Date:	4/9/2013	SeqNo:	4455769

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	10.3	1.0	10	0	103	77	150				
Bromodichloromethane	11.5	1.0	10	0	115	17	157				
Bromoform	10.3	1.0	10	0	103	22	157				
Bromomethane	9.8	1.0	10	0	98.5	0	242				
Carbon tetrachloride	12.6	1.0	10	0	126	59	127				
Chlorobenzene	11.2	1.0	10	0	112	91	151				
Chloroethane	9.1	1.0	10	0	91.1	0	258				
Chloroform	11.3	1.0	10	0	113	50	153				
Chloromethane	7.2	1.0	10	0	71.9	0	279				
Dibromochloromethane	11.4	1.0	10	0	114	47	154				
1,1-Dichloroethene	10.8	1.0	10	0	108	0	237				
trans-1,2-Dichloroethene	10.3	1.0	10	0	103	52	158				
1,2-Dichloropropane	9.6	1.0	10	0	96.4	0	210				
cis-1,3-Dichloropropene	9.6	1.0	10	0	96.5	0	227				
trans-1,3-Dichloropropene	10.2	1.0	10	0	102	17	183				
Ethylbenzene	10.7	1.0	10	0	107	87	159				
Methylene chloride	9.4	1.0	10	0	94.5	0	286				
1,1,2,2-Tetrachloroethane	9.4	1.0	10	0	94.4	47	175				
Tetrachloroethene	10.8	1.0	10	0	108	79	145				
Toluene	10.5	1.0	10	0	105	79	145				
1,1,1-Trichloroethane	12.0	1.0	10	0	120	65	162				
1,1,2-Trichloroethane	9.8	1.0	10	0	97.6	63	161				
Trichloroethene	10.6	1.0	10	0	106	75	178				
Trichlorofluoromethane	11.2	1.0	10	0	112	27	179				
Vinyl chloride	7.6	1.0	10	0	75.6	0	259				
Surr: 1,2-Dichloroethane-d4	11.1		10		111	74	140				
Surr: Toluene-d8	9.9		10		98.6	71.1	126				
Surr: 4-Bromofluorobenzene	10		10		100	75.9	129				

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION **Test Code:** 624_L

Sample ID: **BLANK** Samp Type: **MBLK** Test Code: **624_L** Units: **µg/L** Prep Date: RunNo: **301146**

Client ID: **PBW** Batch ID: **R301146** TestNo: **E624** Analysis Date: **4/9/2013** SeqNo: **4455770**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
Dibromochloromethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
1,2-Dichloropropane	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
Ethylbenzene	ND	1.0									
Methylene chloride	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
Tetrachloroethene	ND	1.0									
Toluene	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	1.0									
Surr: 1,2-Dichloroethane-d4	10.5		10		105	73.2	133				
Surr: Toluene-d8	9.4		10		94.0	71	132				
Surr: 4-Bromofluorobenzene	9.7		10		96.9	74.2	129				

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION **Test Code:** 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	301146
Client ID:	LCSW	Batch ID:	R301146	TestNo:	E624			Analysis Date:	4/8/2013	SeqNo:	4455794

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	10.2	1.0	10	0	102	77	150				
Bromodichloromethane	11.7	1.0	10	0	117	17	157				
Bromoform	11.0	1.0	10	0	110	22	157				
Bromomethane	9.9	1.0	10	0	98.6	0	242				
Carbon tetrachloride	12.9	1.0	10	0	129	59	130				
Chlorobenzene	10.2	1.0	10	0	102	91	151				
Chloroethane	9.0	1.0	10	0	90.2	0	258				
Chloroform	11.4	1.0	10	0	114	50	153				
Chloromethane	7.2	1.0	10	0	71.6	0	279				
Dibromochloromethane	11.3	1.0	10	0	113	47	154				
1,1-Dichloroethene	10.7	1.0	10	0	107	0	237				
trans-1,2-Dichloroethene	10.5	1.0	10	0	105	52	158				
1,2-Dichloropropane	9.9	1.0	10	0	99.2	0	210				
cis-1,3-Dichloropropene	10.8	1.0	10	0	108	0	227				
trans-1,3-Dichloropropene	10.8	1.0	10	0	108	17	183				
Ethylbenzene	10.8	1.0	10	0	108	87	159				
Methylene chloride	9.4	1.0	10	0	93.6	0	286				
1,1,2,2-Tetrachloroethane	9.6	1.0	10	0	96.2	47	175				
Tetrachloroethene	11.1	1.0	10	0	111	79	145				
Toluene	10.4	1.0	10	0	104	79	145				
1,1,1-Trichloroethane	12.2	1.0	10	0	122	65	162				
1,1,2-Trichloroethane	10.2	1.0	10	0	102	63	161				
Trichloroethene	11.0	1.0	10	0	110	75	178				
Trichlorofluoromethane	11.8	1.0	10	0	118	27	179				
Vinyl chloride	8.0	1.0	10	0	79.6	0	259				
Surr: 1,2-Dichloroethane-d4	11.3		10		113	74	140				
Surr: Toluene-d8	10		10		99.8	71.1	126				
Surr: 4-Bromofluorobenzene	10.1		10		101	75.9	129				

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION **Test Code:** 624_L

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	301146
Client ID:	PBW	Batch ID:	R301146	TestNo:	E624			Analysis Date:	4/8/2013	SeqNo:	4455795

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
Dibromochloromethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
1,2-Dichloropropane	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
Ethylbenzene	ND	1.0									
Methylene chloride	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
Tetrachloroethene	ND	1.0									
Toluene	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	1.0									
Surr: 1,2-Dichloroethane-d4	11.1		10		111	73.2	133				
Surr: Toluene-d8	9.8		10		97.7	71	132				
Surr: 4-Bromofluorobenzene	9.6		10		96.2	74.2	129				

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION **Test Code:** 625_SUP_L

Sample ID:	MB-42442	Samp Type:	MBLK	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	4/9/2013	RunNo:	301112
Client ID:	PBW	Batch ID:	42442	TestNo:	E625	SW3510		Analysis Date:	4/9/2013	SeqNo:	4455000

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.0100									
Acenaphthylene	ND	0.0100									
Anthracene	ND	0.0100									
Benzidine	ND	0.0100									
Benzo(a)anthracene	ND	0.0100									
Benzo(a)pyrene	ND	0.0100									
Benzo(b)fluoranthene	ND	0.0100									
Benzo(g,h,i)perylene	ND	0.0100									
Benzo(k)fluoranthene	ND	0.0100									
Bis(2-chloroethoxy)methane	ND	0.0100									
Bis(2-chloroethyl)ether	ND	0.0100									
Bis(2-chloroisopropyl)ether	ND	0.0100									
Bis(2-ethylhexyl)phthalate	ND	0.0100									
4-Bromophenyl phenyl ether	ND	0.0100									
Butyl benzyl phthalate	ND	0.0100									
4-Chloro-3-methylphenol	ND	0.0100									
2-Chloronaphthalene	ND	0.0100									
2-Chlorophenol	ND	0.0100									
4-Chlorophenyl phenyl ether	ND	0.0100									
Chrysene	ND	0.0100									
o-Cresol	ND	0.0100									
m,p-Cresol	ND	0.0100									
Dibenzo(a,h)anthracene	ND	0.0100									
Di-n-butyl phthalate	ND	0.0100									
1,2-Dichlorobenzene	ND	0.0100									
1,3-Dichlorobenzene	ND	0.0100									
1,4-Dichlorobenzene	ND	0.0100									
3,3'-Dichlorobenzidine	ND	0.0100									
2,4-Dichlorophenol	ND	0.0100									
Diethyl phthalate	ND	0.0100									

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION **Test Code:** 625_SUP_L

Sample ID:	MB-42442	Samp Type:	MBLK	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	4/9/2013	RunNo:	301112
Client ID:	PBW	Batch ID:	42442	TestNo:	E625	SW3510		Analysis Date:	4/9/2013	SeqNo:	4455000

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Dimethyl phthalate	ND	0.0100									
2,4-Dimethylphenol	ND	0.0100									
4,6-Dinitro-2-methylphenol	ND	0.0100									
2,4-Dinitrophenol	ND	0.0100									
2,4-Dinitrotoluene	ND	0.0100									
2,6-Dinitrotoluene	ND	0.0100									
Di-n-octyl phthalate	ND	0.0100									
1,2-Diphenylhydrazine	ND	0.0100									
Fluoranthene	ND	0.0100									
Fluorene	ND	0.0100									
Hexachlorobenzene	ND	0.0100									
Hexachlorobutadiene	ND	0.0100									
Hexachlorocyclopentadiene	ND	0.0100									
Hexachloroethane	ND	0.0100									
Indeno(1,2,3-cd)pyrene	ND	0.0100									
Isophorone	ND	0.0100									
Naphthalene	ND	0.0100									
Nitrobenzene	ND	0.0100									
2-Nitrophenol	ND	0.0100									
4-Nitrophenol	ND	0.0100									
N-Nitrosodimethylamine	ND	0.0100									
N-Nitrosodiphenylamine	ND	0.0100									
N-Nitrosodi-n-propylamine	ND	0.0100									
Pentachlorophenol	ND	0.0100									
Phenanthrene	ND	0.0100									
Phenol	ND	0.0100									
Pyrene	ND	0.0100									
1,2,4-Trichlorobenzene	ND	0.0100									
Surr: 2-Fluorophenol	0.0229		0.0500		45.7	32.9	110				
Surr: Phenol-d5	0.0175		0.0500		35.0	25.8	110				

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION **Test Code:** 625_SUP_L

Sample ID:	MB-42442	Samp Type:	MBLK	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	4/9/2013	RunNo:	301112
Client ID:	PBW	Batch ID:	42442	TestNo:	E625	SW3510		Analysis Date:	4/9/2013	SeqNo:	4455000

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.0365		0.0500		73.1	63.8	110				
Surr: Nitrobenzene-d5	0.0423		0.0500		84.7	61.8	110				
Surr: 2-Fluorobiphenyl	0.0346		0.0500		69.2	58.6	110				
Surr: 4-Terphenyl-d14	0.0370		0.0500		73.9	55.1	110				

Sample ID:	LCS-42442	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	4/9/2013	RunNo:	301112
Client ID:	LCSW	Batch ID:	42442	TestNo:	E625	SW3510		Analysis Date:	4/9/2013	SeqNo:	4455001

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acenaphthene	0.0352	0.0100	0.0500	0	70.4	50	143				
Acenaphthylene	0.0379	0.0100	0.0500	0	75.8	36	145				
Anthracene	0.0360	0.0100	0.0500	0	72.0	31	132				
Benzo(a)anthracene	0.0359	0.0100	0.0500	0	71.7	33	141				
Benzo(a)pyrene	0.0342	0.0100	0.0500	0	68.4	13	166				
Benzo(b)fluoranthene	0.0345	0.0100	0.0500	0	69.0	22	157				
Benzo(g,h,i)perylene	0.0333	0.0100	0.0500	0	66.5	0	214				
Benzo(k)fluoranthene	0.0389	0.0100	0.0500	0	77.7	10	158				
Bis(2-chloroethoxy)methane	0.0370	0.0100	0.0500	0	74.0	28	176				
Bis(2-chloroethyl)ether	0.0373	0.0100	0.0500	0	74.7	12	154				
Bis(2-chloroisopropyl)ether	0.0391	0.0100	0.0500	0	78.3	33	164				
Bis(2-ethylhexyl)phthalate	0.0398	0.0100	0.0500	0	79.7	7	157				
4-Bromophenyl phenyl ether	0.0345	0.0100	0.0500	0	69.0	51	126				
Butyl benzyl phthalate	0.0419	0.0100	0.0500	0	83.8	0	148				
4-Chloro-3-methylphenol	0.0368	0.0100	0.0500	0	73.7	18	151				
2-Chloronaphthalene	0.0336	0.0100	0.0500	0	67.2	59	119				
2-Chlorophenol	0.0357	0.0100	0.0500	0	71.3	20	137				
4-Chlorophenyl phenyl ether	0.0350	0.0100	0.0500	0	70.1	27	157				
Chrysene	0.0356	0.0100	0.0500	0	71.2	18	164				
Dibenzo(a,h)anthracene	0.0279	0.0100	0.0500	0	55.8	0	239				
Di-n-butyl phthalate	0.0403	0.0100	0.0500	0	80.6	0	121				
1,2-Dichlorobenzene	0.0313	0.0100	0.0500	0	62.6	32	130				

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION **Test Code:** 625_SUP_L

Sample ID:	LCS-42442	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	4/9/2013	RunNo:	301112
Client ID:	LCSW	Batch ID:	42442	TestNo:	E625	SW3510		Analysis Date:	4/9/2013	SeqNo:	4455001

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	0.0299	0.0100	0.0500	0	59.8	0	170				
1,4-Dichlorobenzene	0.0303	0.0100	0.0500	0	60.7	19	121				
3,3'-Dichlorobenzidine	0.0325	0.0100	0.0500	0	65.1	0	227				
2,4-Dichlorophenol	0.0366	0.0100	0.0500	0	73.2	36	138				
Diethyl phthalate	0.0391	0.0100	0.0500	0	78.1	0	103				
2,4-Dimethylphenol	0.0357	0.0100	0.0500	0	71.4	31	129				
4,6-Dinitro-2-methylphenol	0.0324	0.0100	0.0500	0	64.8	0	191				
2,4-Dinitrophenol	0.0290	0.0100	0.0500	0	58.0	0	219				
2,4-Dinitrotoluene	0.0401	0.0100	0.0500	0	80.1	33	132				
2,6-Dinitrotoluene	0.0371	0.0100	0.0500	0	74.1	51	146				
Di-n-octyl phthalate	0.0422	0.0100	0.0500	0	84.5	1	147				
Fluoranthene	0.0387	0.0100	0.0500	0	77.3	29	137				
Fluorene	0.0361	0.0100	0.0500	0	72.3	59	122				
Hexachlorobenzene	0.0342	0.0100	0.0500	0	68.4	0	152				
Hexachlorobutadiene	0.0266	0.0100	0.0500	0	53.2	23	115				
Hexachloroethane	0.0286	0.0100	0.0500	0	57.2	38	105				
Indeno(1,2,3-cd)pyrene	0.0322	0.0100	0.0500	0	64.3	0	162				
Isophorone	0.0377	0.0100	0.0500	0	75.3	21	209				
Naphthalene	0.0322	0.0100	0.0500	0	64.3	25	134				
Nitrobenzene	0.0369	0.0100	0.0500	0	73.9	34	172				
2-Nitrophenol	0.0385	0.0100	0.0500	0	76.9	23	186				
4-Nitrophenol	ND	0.0100	0.0500	0	0	0	137				
N-Nitrosodi-n-propylamine	0.0370	0.0100	0.0500	0	73.9	0	209				
Pentachlorophenol	0.0347	0.0100	0.0500	0	69.3	5	189				
Phenanthrene	0.0360	0.0100	0.0500	0	71.9	5	120				
Phenol	0.0169	0.0100	0.0500	0	33.9	4	87				
Pyrene	0.0371	0.0100	0.0500	0	74.2	52	116				
1,2,4-Trichlorobenzene	0.0308	0.0100	0.0500	0	61.6	43	142				
Surr: 2-Fluorophenol	0.0224		0.0500		44.7	32.9	110				
Surr: Phenol-d5	0.0171		0.0500		34.2	25.8	110				

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION **Test Code:** 625_SUP_L

Sample ID:	LCS-42442	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	4/9/2013	RunNo:	301112
Client ID:	LCSW	Batch ID:	42442	TestNo:	E625	SW3510		Analysis Date:	4/9/2013	SeqNo:	4455001

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.0389		0.0500		77.9	63.8	110				
Surr: Nitrobenzene-d5	0.0428		0.0500		85.5	61.8	110				
Surr: 2-Fluorobiphenyl	0.0358		0.0500		71.5	58.6	110				
Surr: 4-Terphenyl-d14	0.0363		0.0500		72.6	55.1	110				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1304588

Date Reported: 4/11/2013

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION **Test Code:** CN_335.4

Sample ID:	MB-42379	Samp Type:	MBLK	Test Code:	CN_335.4	Units:	mg/L	Prep Date:	4/5/2013	RunNo:	300969
Client ID:	PBW	Batch ID:	42379	TestNo:	E335.4			Analysis Date:	4/8/2013	SeqNo:	4452102

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyanide, Total	ND	0.020									

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION **Test Code:** NH3_N_350.1

Sample ID:	LCS	Samp Type:	LCS	Test Code:	NH3_N_350.1	Units:	mg/L	Prep Date:		RunNo:	300886
Client ID:	LCSW	Batch ID:	R300886	TestNo:	E350.1			Analysis Date:	4/5/2013	SeqNo:	4450500

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	1.02	0.10	1.00	0	102	89.9	110.1				

Sample ID:	LCS	Samp Type:	LCS	Test Code:	NH3_N_350.1	Units:	mg/L	Prep Date:		RunNo:	300886
Client ID:	LCSW	Batch ID:	R300886	TestNo:	E350.1			Analysis Date:	4/5/2013	SeqNo:	4450589

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	1.05	0.10	1.00	0	105	89.9	110.1				

Sample ID:	LCS	Samp Type:	LCS	Test Code:	NH3_N_350.1	Units:	mg/L	Prep Date:		RunNo:	300886
Client ID:	LCSW	Batch ID:	R300886	TestNo:	E350.1			Analysis Date:	4/5/2013	SeqNo:	4450616

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	1.06	0.10	1.00	0	106	89.9	110.1				

Sample ID:	LCS	Samp Type:	LCS	Test Code:	NH3_N_350.1	Units:	mg/L	Prep Date:		RunNo:	300886
Client ID:	LCSW	Batch ID:	R300886	TestNo:	E350.1			Analysis Date:	4/5/2013	SeqNo:	4450641

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	1.04	0.10	1.00	0	104	89.9	110.1				

REI Consultants, Inc. - QC SUMMARY REPORT

WO# 1304588

Date Reported: 4/11/2013

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION **Test Code:** PHENOLICS_L

Sample ID:	MB-R301139	Samp Type:	MBLK	Test Code:	PHENOLICS_L	Units:	mg/L	Prep Date:		RunNo:	301139	
Client ID:	PBW	Batch ID:	R301139	TestNo:	E420.1			Analysis Date:	4/10/2013	SeqNo:	4455546	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Phenolics		ND	0.010									

Sample ID:	LCS-R301139	Samp Type:	LCS	Test Code:	PHENOLICS_L	Units:	mg/L	Prep Date:		RunNo:	301139	
Client ID:	LCSW	Batch ID:	R301139	TestNo:	E420.1			Analysis Date:	4/10/2013	SeqNo:	4455547	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Phenolics		0.102	0.010	0.100	0	102	89.9	110.1				

REI Consultants, Inc. - QC SUMMARY REPORT

Work Order: 1304588

Date Reported: 4/11/2013

Client: WESTERN VA WATER WWTP

Project: VPDES PERMIT APPLICATION

Test Code: SOLIDS_TDS

Sample ID:	MB-R301011	Samp Type:	MBLK	Test Code:	SOLIDS_TDS	Units:	mg/L	Prep Date:		RunNo:	301011	
Client ID:	PBW	Batch ID:	R301011	TestNo:	SM2540 C			Analysis Date:	4/6/2013	SeqNo:	4453140	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Total Dissolved Solids		ND	10									

Sample ID:	LCS-R301011	Samp Type:	LCS	Test Code:	SOLIDS_TDS	Units:	mg/L	Prep Date:		RunNo:	301011	
Client ID:	LCSW	Batch ID:	R301011	TestNo:	SM2540 C			Analysis Date:	4/6/2013	SeqNo:	4453141	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Total Dissolved Solids		249	10	250	0	100	89.9	110.1				

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: 304.255.2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

3029-C Peters Creek Road
Roanoke, VA 24019
TEL: 540.777.1276

101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.777.1276

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Tuesday, June 11, 2013

Ms. Janis Richardson
WESTERN VA WATER WWTP
1502 BROWNLEE AV SE
ROANOKE, VA 24014

TEL: (540) 853-1517
FAX: (540) 853-1307

RE: MAY SAMPLING
Work Order #: 1305V06

Dear Ms. Janis Richardson:

REI Consultants, Inc. received 6 sample(s) on 5/29/2013 for the analyses presented in the following report.

Sincerely,

Joy Castle
Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1305V06

Date Reported: 6/11/2013

Client: WESTERN VA WATER WWTP

Project: MAY SAMPLING

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
X: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460149, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094

REI Consultants, Inc. - Analytical Report

WO#: 1305V06

Date Reported: 6/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	5/29/2013 9:20:00 AM
Project:	MAY SAMPLING	**Date Received:**	5/29/2013
Lab ID:	1305V06-01A	**Matrix:**	Waste Water
Client Sample ID:	001 - GRAB 1	**Site ID:**	001

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	CY		NA				
pH, SM4500H+ B	6.73		NA		S.U.		
Temperature, SM 2550B	21.0		NA		deg C		
OIL and GREASE		**Method: EPA1664A**					**Analyst: MC**
Oil & Grease	ND	5.0	NA		mg/L		6/7/2013 10:00 AM

REI Consultants, Inc. - Analytical Report

WO#: 1305V06

Date Reported: 6/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	5/29/2013 9:35:00 AM
Project:	MAY SAMPLING	**Date Received:**	5/29/2013
Lab ID:	1305V06-02A	**Matrix:**	Waste Water
Client Sample ID:	001 - GRAB 2	**Site ID:**	001

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	CY		NA				
pH, SM4500H+ B	7.01		NA		S.U.		
OIL and GREASE		**Method: EPA1664A**					**Analyst: MC**
Oil & Grease	ND	5.0	NA		mg/L		6/6/2013 9:30 AM

REI Consultants, Inc. - Analytical Report

WO#: 1305V06

Date Reported: 6/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	5/29/2013 9:50:00 AM
Project:	MAY SAMPLING	**Date Received:**	5/29/2013
Lab ID:	1305V06-03A	**Matrix:**	Waste Water
Client Sample ID:	001 - GRAB 3	**Site ID:**	001

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	CY		NA				
pH, SM4500H+ B	7.07		NA		S.U.		
OIL and GREASE		**Method: EPA1664A**					**Analyst: MC**
Oil & Grease	ND	5.0	NA		mg/L		6/7/2013 10:00 AM

REI Consultants, Inc. - Analytical Report

WO#: 1305V06

Date Reported: 6/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	5/29/2013 10:05:00 AM
Project:	MAY SAMPLING	**Date Received:**	5/29/2013
Lab ID:	1305V06-04A	**Matrix:**	Waste Water
Client Sample ID:	001 - GRAB 4	**Site ID:**	001

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	CY		NA				
pH, SM4500H+ B	7.10		NA		S.U.		
ACROLEIN BY E624		**Method: E624**					**Analyst: RB**
Acrolein	ND	10	NA		µg/L		5/31/2013 12:59 AM
VOLATILE ORGANIC COMPOUNDS		**Method: E624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Bromodichloromethane	14.3	1.0	NA		µg/L		5/31/2013 12:59 AM
Bromoform	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Bromomethane	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Carbon tetrachloride	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Chlorobenzene	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Chloroethane	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Chloroform	17.0	10	NA		µg/L		6/3/2013 9:56 PM
Chloromethane	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Dibromochloromethane	2.7	1.0	NA		µg/L		5/31/2013 12:59 AM
1,1-Dichloroethene	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
1,2-Dichloropropane	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Ethylbenzene	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Methylene chloride	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Tetrachloroethene	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Toluene	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Trichloroethene	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Trichlorofluoromethane	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Vinyl chloride	ND	1.0	NA		µg/L		5/31/2013 12:59 AM
Surr: 1,2-Dichloroethane-d4	124	73.2-133	NA		%REC		5/31/2013 12:59 AM
Surr: Toluene-d8	81.1	71-132	NA		%REC		5/31/2013 12:59 AM
Surr: 4-Bromofluorobenzene	99.4	74.2-129	NA		%REC		5/31/2013 12:59 AM
VOLATILE ORGANIC COMPOUNDS-624		**Method: E624**					**Analyst: RB**
2-Chloroethyl vinyl ether	ND	5.0	NA		µg/L		5/31/2013 12:59 AM
Acrylonitrile	ND	10	NA		µg/L		5/31/2013 12:59 AM
Surr: 1,2-Dichloroethane-d4	124	73.2-133	NA		%REC		5/31/2013 12:59 AM

REI Consultants, Inc. - Analytical Report

WO#: 1305V06

Date Reported: 6/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	5/29/2013 10:05:00 AM
Project:	MAY SAMPLING	**Date Received:**	5/29/2013
Lab ID:	1305V06-04A	**Matrix:**	Waste Water
Client Sample ID:	001 - GRAB 4	**Site ID:**	001

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Surr: Toluene-d8	81.1	71-132	NA		%REC		5/31/2013 12:59 AM
Surr: 4-Bromofluorobenzene	99.4	74.2-129	NA		%REC		5/31/2013 12:59 AM
OIL and GREASE		**Method: EPA1664A**					**Analyst: MC**
Oil & Grease	ND	5.0	NA		mg/L		6/7/2013 10:00 AM
PHENOLICS		**Method: E420.1**					**Analyst: BA**
Phenolics	ND	0.010	NA		mg/L		5/31/2013 1:00 PM
Cyanide		**Method: E335.4**					**Analyst: AL**
Cyanide, Total	ND	0.020	NA		mg/L	5/31/2013 8:35 AM	5/31/2013 11:25 AM

REI Consultants, Inc. - Analytical Report

WO#: 1305V06

Date Reported: 6/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	5/29/2013 2:00:00 PM
Project:	MAY SAMPLING	**Date Received:**	5/29/2013
Lab ID:	1305V06-05A	**Matrix:**	Waste Water
Client Sample ID:	001 - COMP	**Site ID:**	001

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	CY		NA				
HARDNESS		**Method: SM2340 B**				**E200.2**	**Analyst: LF**
Hardness, Total (As CaCO3)	188	1.00	NA		mg/L	5/31/2013 11:00 AM	5/31/2013 5:26 PM
SEMIVOLATILE ORGANIC COMPOUNDS		**Method: E625**				**SW3510**	**Analyst: JD**
Acenaphthene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Acenaphthylene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Anthracene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Benzidine	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Benzo(a)anthracene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Benzo(a)pyrene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Benzo(b)fluoranthene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Benzo(g,h,i)perylene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Benzo(k)fluoranthene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Bis(2-chloroethoxy)methane	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Bis(2-chloroethyl)ether	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Bis(2-chloroisopropyl)ether	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Bis(2-ethylhexyl)phthalate	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
4-Bromophenyl phenyl ether	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Butyl benzyl phthalate	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
4-Chloro-3-methylphenol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
2-Chloronaphthalene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
2-Chlorophenol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
4-Chlorophenyl phenyl ether	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Chrysene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
o-Cresol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
m,p-Cresol	ND	0.0204	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Dibenzo(a,h)anthracene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Di-n-butyl phthalate	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
1,2-Dichlorobenzene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
1,3-Dichlorobenzene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
1,4-Dichlorobenzene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
3,3'-Dichlorobenzidine	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
2,4-Dichlorophenol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Diethyl phthalate	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Dimethyl phthalate	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
2,4-Dimethylphenol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
4,6-Dinitro-2-methylphenol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
2,4-Dinitrophenol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/7/2013 7:02 PM

REI Consultants, Inc. - Analytical Report

WO#: 1305V06

Date Reported: 6/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	5/29/2013 2:00:00 PM
Project:	MAY SAMPLING	**Date Received:**	5/29/2013
Lab ID:	1305V06-05A	**Matrix:**	Waste Water
Client Sample ID:	001 - COMP	**Site ID:**	001

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
2,4-Dinitrotoluene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
2,6-Dinitrotoluene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Di-n-octyl phthalate	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
1,2-Diphenylhydrazine	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Fluoranthene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Fluorene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Hexachlorobenzene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Hexachlorobutadiene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Hexachlorocyclopentadiene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Hexachloroethane	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Indeno(1,2,3-cd)pyrene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Isophorone	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Naphthalene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Nitrobenzene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
2-Nitrophenol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
4-Nitrophenol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
N-Nitrosodimethylamine	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
N-Nitrosodiphenylamine	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
N-Nitrosodi-n-propylamine	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Pentachlorophenol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Phenanthrene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Phenol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Pyrene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
1,2,4-Trichlorobenzene	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
2,4,6-Trichlorophenol	ND	0.0102	NA		mg/L	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Surr: 2-Fluorophenol	47.3	25.9-110	NA		%REC	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Surr: Phenol-d5	35.9	8.2-110	NA		%REC	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Surr: 2,4,6-Tribromophenol	95.7	61.7-110	NA		%REC	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Surr: Nitrobenzene-d5	90.1	62.2-110	NA		%REC	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Surr: 2-Fluorobiphenyl	81.6	54.6-110	NA		%REC	6/3/2013 10:43 AM	6/6/2013 12:37 AM
Surr: 4-Terphenyl-d14	83.0	10.7-110	NA		%REC	6/3/2013 10:43 AM	6/6/2013 12:37 AM
ANIONS by ION CHROMATOGRAPHY		**Method: SM4110B**					**Analyst: CF**
Nitrogen, Nitrate-Nitrite	12.1	1.00	NA		mg/L		5/30/2013 9:15 PM
AMMONIA NITROGEN		**Method: EPA350.1**					**Analyst: AL**
Nitrogen, Ammonia (As N)	ND	0.10	NA		mg/L		5/30/2013 3:28 PM
TOTAL DISSOLVED SOLIDS		**Method: SM2540 C**					**Analyst: SF**
Total Dissolved Solids	349	10	NA		mg/L		5/31/2013 2:56 PM

REI Consultants, Inc. - Analytical Report

WO#: 1305V06

Date Reported: 6/11/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	5/29/2013 12:00:00 AM
Project:	MAY SAMPLING	**Date Received:**	5/29/2013
Lab ID:	1305V06-06A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	001

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
ACROLEIN BY E624		**Method: E624**					**Analyst: RB**
Acrolein	ND	10	NA		µg/L		5/31/2013 1:34 AM
VOLATILE ORGANIC COMPOUNDS		**Method: E624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Bromodichloromethane	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Bromoform	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Bromomethane	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Carbon tetrachloride	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Chlorobenzene	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Chloroethane	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Chloroform	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Chloromethane	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Dibromochloromethane	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
1,1-Dichloroethene	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
1,2-Dichloropropane	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Ethylbenzene	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Methylene chloride	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Tetrachloroethene	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Toluene	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Trichloroethene	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Trichlorofluoromethane	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Vinyl chloride	ND	1.0	NA		µg/L		5/31/2013 1:34 AM
Surr: 1,2-Dichloroethane-d4	111	73.2-133	NA		%REC		5/31/2013 1:34 AM
Surr: Toluene-d8	90.6	71-132	NA		%REC		5/31/2013 1:34 AM
Surr: 4-Bromofluorobenzene	144	74.2-129	NA	S	%REC		5/31/2013 1:34 AM
VOLATILE ORGANIC COMPOUNDS-624		**Method: E624**					**Analyst: RB**
2-Chloroethyl vinyl ether	ND	5.0	NA		µg/L		5/31/2013 1:34 AM
Acrylonitrile	ND	10	NA		µg/L		5/31/2013 1:34 AM
Surr: 1,2-Dichloroethane-d4	111	73.2-133	NA		%REC		5/31/2013 1:34 AM
Surr: Toluene-d8	90.6	71-132	NA		%REC		5/31/2013 1:34 AM
Surr: 4-Bromofluorobenzene	144	74.2-129	NA	S	%REC		5/31/2013 1:34 AM

REI Consultants, Inc. - QC SUMMARY REPORT

W 1305V06

Date Reported: 6/11/2013

Client: WESTERN VA WATER WWTP

Project: MAY SAMPLING **Test Code:** 1664_HEM

Sample ID:	LCS-R304904	Samp Type:	LCS	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	304904	
Client ID:	LCSW	Batch ID:	R304904	TestNo:	EPA1664A			Analysis Date:	6/6/2013	SeqNo:	4536742	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		36.9	5.0	40.0	0	92.2	77.9	114.1				

Sample ID:	LCSD-R304904	Samp Type:	LCSD	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	304904	
Client ID:	LCSS02	Batch ID:	R304904	TestNo:	EPA1664A			Analysis Date:	6/6/2013	SeqNo:	4536743	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		34.1	5.0	40.0	0	85.2	77.9	114.1	36.9	7.9	20	

Sample ID:	MB-R304904	Samp Type:	MBLK	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	304904	
Client ID:	PBW	Batch ID:	R304904	TestNo:	EPA1664A			Analysis Date:	6/6/2013	SeqNo:	4536744	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		ND	5.0									

Sample ID:	LCS-R304968	Samp Type:	LCS	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	304968	
Client ID:	LCSW	Batch ID:	R304968	TestNo:	EPA1664A			Analysis Date:	6/7/2013	SeqNo:	4537893	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		41.9	5.0	40.0	0	105	77.9	114.1				

Sample ID:	LCSD-R304968	Samp Type:	LCSD	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	304968	
Client ID:	LCSS02	Batch ID:	R304968	TestNo:	EPA1664A			Analysis Date:	6/7/2013	SeqNo:	4537894	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		38.8	5.0	40.0	0	97.0	77.9	114.1	41.9	7.7	20	

Sample ID:	MB-R304968	Samp Type:	MBLK	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	304968	
Client ID:	PBW	Batch ID:	R304968	TestNo:	EPA1664A			Analysis Date:	6/7/2013	SeqNo:	4537895	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		ND	5.0									

REI Consultants, Inc. - QC SUMMARY REPORT

W 1305V06

Date Reported: 6/11/2013

Client: WESTERN VA WATER WWTP

Project: MAY SAMPLING **Test Code:** 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	304528
Client ID:	LCSW	Batch ID:	R304528	TestNo:	E624			Analysis Date:	5/30/2013	SeqNo:	4528438

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	11.5	1.0	10	0	115	77	150				
Bromodichloromethane	10.7	1.0	10	0	107	17	157				
Bromoform	11.4	1.0	10	0	114	22	157				
Bromomethane	8.2	1.0	10	0	81.5	0	242				
Carbon tetrachloride	12.7	1.0	10	0	127	59	127				
Chlorobenzene	11.2	1.0	10	0	112	91	151				
Chloroethane	8.9	1.0	10	0	88.6	0	258				
Chloroform	11.6	1.0	10	0	116	50	153				
Chloromethane	7.4	1.0	10	0	73.6	0	279				
Dibromochloromethane	11.3	1.0	10	0	113	47	154				
1,1-Dichloroethene	9.7	1.0	10	0	96.6	0	237				
trans-1,2-Dichloroethene	11.5	1.0	10	0	115	52	158				
1,2-Dichloropropane	10.8	1.0	10	0	108	0	210				
cis-1,3-Dichloropropene	8.5	1.0	10	0	84.6	0	227				
trans-1,3-Dichloropropene	10.7	1.0	10	0	107	17	183				
Ethylbenzene	10.6	1.0	10	0	106	87	159				
Methylene chloride	9.5	1.0	10	0	94.7	0	286				
1,1,2,2-Tetrachloroethane	9.9	1.0	10	0	98.7	47	175				
Tetrachloroethene	11.6	1.0	10	0	116	79	145				
Toluene	10.6	1.0	10	0	106	79	145				
1,1,1-Trichloroethane	12.0	1.0	10	0	120	65	162				
1,1,2-Trichloroethane	10.3	1.0	10	0	103	63	161				
Trichloroethene	12.0	1.0	10	0	120	75	178				
Trichlorofluoromethane	9.3	1.0	10	0	93.4	27	179				
Vinyl chloride	7.9	1.0	10	0	79.0	0	259				
Surr: Dibromofluoromethane	11.1		10		111	65.5	133				
Surr: 1,2-Dichloroethane-d4	10.3		10		103	74	140				
Surr: Toluene-d8	9.0		10		89.9	71.1	126				
Surr: 4-Bromofluorobenzene	10.4		10		104	75.9	129				

Client: WESTERN VA WATER WWTP

Project: MAY SAMPLING **Test Code:** 624_L

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	304528
Client ID:	PBW	Batch ID:	R304528	TestNo:	E624			Analysis Date:	5/30/2013	SeqNo:	4528439

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
Dibromochloromethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
1,2-Dichloropropane	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
Ethylbenzene	ND	1.0									
Methylene chloride	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
Tetrachloroethene	ND	1.0									
Toluene	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	1.0									
Surr: Dibromofluoromethane	10.6		10		106	70.8	128				
Surr: 1,2-Dichloroethane-d4	10.2		10		102	73.2	133				
Surr: Toluene-d8	12.2		10		122	71	132				
Surr: 4-Bromofluorobenzene	9.1		10		90.6	74.2	129				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1305V06

Date Reported: 6/11/2013

Client: WESTERN VA WATER WWTP

Project: MAY SAMPLING **Test Code:** 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	304528
Client ID:	LCSW	Batch ID:	R304528	TestNo:	E624			Analysis Date:	5/31/2013	SeqNo:	4528459

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	23.0	1.0	20.0	0	115	77	150				
Bromodichloromethane	25.2	1.0	20.0	0	126	17	157				E
Bromoform	23.3	1.0	20.0	0	116	22	157				
Bromomethane	16.8	1.0	20.0	0	83.9	0	242				
Carbon tetrachloride	24.0	1.0	20.0	0	120	59	127				
Chlorobenzene	22.7	1.0	20.0	0	114	91	151				
Chloroethane	17.2	1.0	20.0	0	86.0	0	258				
Chloroform	22.6	1.0	20.0	0	113	50	153				
Chloromethane	15.1	1.0	20.0	0	75.5	0	279				
Dibromochloromethane	22.4	1.0	20.0	0	112	47	154				
1,1-Dichloroethene	20.3	1.0	20.0	0	101	0	237				
trans-1,2-Dichloroethene	22.5	1.0	20.0	0	113	52	158				
1,2-Dichloropropane	22.5	1.0	20.0	0	113	0	210				
cis-1,3-Dichloropropene	17.7	1.0	20.0	0	88.3	0	227				
trans-1,3-Dichloropropene	21.6	1.0	20.0	0	108	17	183				
Ethylbenzene	21.3	1.0	20.0	0	106	87	159				
Methylene chloride	19.0	1.0	20.0	0	95.0	0	286				
1,1,2,2-Tetrachloroethane	17.5	1.0	20.0	0	87.6	47	175				
Tetrachloroethene	22.6	1.0	20.0	0	113	79	145				
Toluene	21.6	1.0	20.0	0	108	79	145				
1,1,1-Trichloroethane	24.0	1.0	20.0	0	120	65	162				
1,1,2-Trichloroethane	20.9	1.0	20.0	0	105	63	161				
Trichloroethene	23.5	1.0	20.0	0	118	75	178				
Trichlorofluoromethane	17.5	1.0	20.0	0	87.4	27	179				
Vinyl chloride	16.1	1.0	20.0	0	80.4	0	259				
Surr: Dibromofluoromethane	9.6		10		96.2	65.5	133				
Surr: 1,2-Dichloroethane-d4	9.9		10		98.7	74	140				
Surr: Toluene-d8	8.7		10		86.8	71.1	126				
Surr: 4-Bromofluorobenzene	8.3		10		83.1	75.9	129				

REI Consultants, Inc. - QC SUMMARY REPORT

WO 1305V06

Date Reported: 6/11/2013

Client: WESTERN VA WATER WWTP

Project: MAY SAMPLING **Test Code:** 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	304642
Client ID:	LCSW	Batch ID:	R304642	TestNo:	E624			Analysis Date:	6/3/2013	SeqNo:	4530961

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloroform	11.3	1.0	10	0	113	50	153				
Surr: Dibromofluoromethane	12.0		10		120	65.5	133				
Surr: 1,2-Dichloroethane-d4	11.0		10		110	74	140				
Surr: Toluene-d8	9.7		10		96.9	71.1	126				
Surr: 4-Bromofluorobenzene	9.9		10		98.9	75.9	129				

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	304642
Client ID:	PBW	Batch ID:	R304642	TestNo:	E624			Analysis Date:	6/3/2013	SeqNo:	4530962

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloroform	ND	1.0									
Surr: Dibromofluoromethane	11.3		10		113	70.8	128				
Surr: 1,2-Dichloroethane-d4	10.1		10		101	73.2	133				
Surr: Toluene-d8	9.8		10		97.5	71	132				
Surr: 4-Bromofluorobenzene	9.1		10		90.8	74.2	129				

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	304642
Client ID:	LCSW	Batch ID:	R304642	TestNo:	E624			Analysis Date:	6/4/2013	SeqNo:	4532110

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloroform	10.8	1.0	10	0	108	50	153				
Surr: Dibromofluoromethane	12.1		10		121	65.5	133				
Surr: 1,2-Dichloroethane-d4	10.8		10		108	74	140				
Surr: Toluene-d8	10.1		10		101	71.1	126				
Surr: 4-Bromofluorobenzene	10.1		10		101	75.9	129				

REI Consultants, Inc. - QC SUMMARY REPORT

WO: 1305V06

Date Reported: 6/11/2013

Client: WESTERN VA WATER WWTP

Project: MAY SAMPLING

Test Code: CN_335.4

Sample ID:	MB-43683	Samp Type:	MBLK	Test Code:	CN_335.4	Units:	mg/L	Prep Date:	5/31/2013	RunNo:	304531
Client ID:	PBW	Batch ID:	43683	TestNo:	E335.4			Analysis Date:	5/31/2013	SeqNo:	4528498

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyanide, Total	ND	0.020									

Client: WESTERN VA WATER WWTP

Project: MAY SAMPLING **Test Code:** NH3_N_350.1

Sample ID:	LCS	Samp Type:	LCS	Test Code:	NH3_N_350.1	Units:	mg/L	Prep Date:		RunNo:	304478
Client ID:	LCSW	Batch ID:	R304478	TestNo:	EPA350.1			Analysis Date:	5/30/2013	SeqNo:	4527589

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	0.99	0.10	1.00	0	99.1	89.9	110.1				

Sample ID:	LCS	Samp Type:	LCS	Test Code:	NH3_N_350.1	Units:	mg/L	Prep Date:		RunNo:	304478
Client ID:	LCSW	Batch ID:	R304478	TestNo:	EPA350.1			Analysis Date:	5/30/2013	SeqNo:	4527651

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	1.08	0.10	1.00	0	108	89.9	110.1				

REI Consultants, Inc. - QC SUMMARY REPORT

WO 1305V06

Date Reported: 6/11/2013

Client: WESTERN VA WATER WWTP

Project: MAY SAMPLING **Test Code:** PHENOLICS_L

Sample ID:	MB-R304538	Samp Type:	MBLK	Test Code:	PHENOLICS_L	Units:	mg/L	Prep Date:		RunNo:	304538	
Client ID:	PBW	Batch ID:	R304538	TestNo:	E420.1			Analysis Date:	5/31/2013	SeqNo:	4528707	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Phenolics		ND	0.010									

Sample ID:	LCS-R304538	Samp Type:	LCS	Test Code:	PHENOLICS_L	Units:	mg/L	Prep Date:		RunNo:	304538	
Client ID:	LCSW	Batch ID:	R304538	TestNo:	E420.1			Analysis Date:	5/31/2013	SeqNo:	4528708	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Phenolics		0.102	0.010	0.100	0	102	89.9	110.1				

REI Consultants, Inc. - QC SUMMARY REPORT

WO 1305V06

Date Reported: 6/11/2013

Client: WESTERN VA WATER WWTP

Project: MAY SAMPLING

Test Code: SOLIDS_TDS

Sample ID:	MB-R304574	Samp Type:	MBLK	Test Code:	SOLIDS_TDS	Units:	mg/L	Prep Date:		RunNo:	304574	
Client ID:	PBW	Batch ID:	R304574	TestNo:	SM2540 C			Analysis Date:	5/31/2013	SeqNo:	4529452	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Total Dissolved Solids		ND	10									

Sample ID:	LCS-R304574	Samp Type:	LCS	Test Code:	SOLIDS_TDS	Units:	mg/L	Prep Date:		RunNo:	304574	
Client ID:	LCSW	Batch ID:	R304574	TestNo:	SM2540 C			Analysis Date:	5/31/2013	SeqNo:	4529453	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Total Dissolved Solids		250	10	250	0	100	89.9	110.1				

CHAIN OF CUSTODY RECORD

V8-0612 REIC use ONLY — CLIENT ID WES113 — DATE _____ — SHEET _____

REIC
Research Environmental & Industrial Consultants, Inc.
MAIN LABORATORY & CORPORATE HEADQUARTERS:
P.O. Box 286 • 225 Industrial Park Rd, Beaver, WV 25813
800-999-0105 • 304-255-2500 • www.reiclabs.com

MID-OHIO VALLEY Service Center	SHENANDOAH Service Center	ROANOKE Service Center	MORGANTOWN Service Center
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Ashland, KY 41101	Verona, VA 24482	Roanoke, VA 24019	Westover, WV 26501
606-393-5027	540-248-0183	540-777-1276	304-241-5861

Client: WVWA — PO # _____

Contact Person JANIS RICHARDSON — Phone 540-0853-1517

Address 1502 BROWNLEE AVE SE — City ROANOKE — State VA — Zip 24014

Billing Address (if different) QUOTE 1706

City _____ — State _____ — Zip _____

Site ID & State 001 — Project ID May sampling — Sampler Christian Yates

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME

(◉) NORMAL ( ) RUSH TURNAROUND: ( ) 5 DAY ( ) 3 DAY ( ) 2 DAY ( ) 1 DAY

*Rush work needs prior laboratory approval and will incur additional charges

ANALYSIS & METHOD REQUESTED:
- TTO 624
- 1664 OG
- CYANIDE
- TOTAL PHENOLICS
- TTO 625
- NH3 NO2NO3
- TDS
- HARDNESS, (METALS ON HOLD)

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	624	1664	CN	PHEN	625	NH3	TDS	HARD
001 – GRAB 1		5-29-13 / 09:20	W Water	Grab	X	X	X	X				
001 – GRAB 2		/ 09:35	W Water	Grab	X	X	X	X				
001 – GRAB 3		/ 09:50	W Water	Grab	X	X	X	X				
001 – GRAB 4		/ 10:05	W Water	Grab	X	X	X	X				
				Choose								
001 – COMP		5-29-13 / 14:00	W Water	Comp					X	X	X	X
Start = 5/28 @ 14:00				Choose								
Stop = 5/29 @ 14:00				Choose								
Trip Blank-mm	1			Choose								

ENTER PRESERVATIVE CODE:

0 None	5 Sodium Hydroxide
1 Hydrochloric Acid	6 Zinc Acetate
2 Nitric Acid	7 EDTA
3 Sulfuric Acid	8 Ascorbic Acid
4 Sodium Thiosulfate	

COMMENTS:

pH Grabs
(1) 09:20 = 6.73 @ 21.0 °C
(2) 09:35 = 7.01 @ 22.6 °C
(3) 09:50 = 7.07 @ 20.7 °C
(4) 10:05 = 7.10 @ 21.3 °C

All analytical requests are subject to REIC's Standard Terms and Conditions

Temperature at arrival: 1.7 °C — ICED? Y X N ___

1	Date/Time	2	Date/Time	3	Date/Time
Relinquished by (Signature) C Yates	5-29-13 1545	Relinquished by (Signature)		Relinquished by (Signature)	
Received by (Signature) Amanda	5-29-13 1545	Received by (Signature)		Received by (Signature)	

Cleaning wastewater every day for a better Bay.

1432 Air Rail Avenue, Virginia Beach, VA 23455-3002 • 757.460.4205 • Fax: 757.460.6586 • www.hrsd.com

05/29/13 - Western Virginia Water Authority

This analytical report contains 5 pages

Janis Richardson
Environmental Programs Coordinator
Western Virginia Water Authority
1502 Brownlee Avenue, SE
Roanoke, VA 24014

Janis.Richardson@WesternVaWater.org

Date Sent: **06/07/13**

HRSD CEL, Central Environmental Laboratory is VELAP/NELAC accredited by DCLS, the Division of Consolidated Laboratory Services.

VA Laboratory ID#: 460011
Effective Date: May 07, 2013
Expiration Date: June 14, 2013
Certificate # 2157

Analytical test results meet all requirements of VELAP/NELAC unless otherwise noted under the analysis.

Test results relate only to the sample tested. Clients should be aware that a critical step in chemical or microbiological analysis is the collection of the sample.

If you have any questions concerning this report, please do not hesitate to contact
Danny Barker, TSD Environmental Scientist at (757) 460-4247
dbarker@hrsd.com
Robin Parnell, CEL Laboratory Manager at (757) 460-4203.
rparnell@hrsd.com
Cindi Reno, CEL Administrative Assistant at (757) 460-4205.
creno@hrsd.com

Cleaning wastewater every day for a better Bay.

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CENTRAL ENVIRONMENTAL LABORATORY
ANALYTICAL REPORT

Project: Western Virginia Water Authority
Customer Sample ID: Field Blank
Project Code: WVWA
Sample Point: FB
Sample Date: 05/29/13

Analyte	Method	Unit	Result	Report Limit[1]	Analyst	Analysis Date	Analysis Time
Antimony Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	06/04/13	11:22
Arsenic Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	06/04/13	11:22
Beryllium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	06/04/13	11:22
Cadmium Total	EPA 200.8	ug/L	<0.05	0.05	KWILLI	06/04/13	11:22
Chromium Total	EPA 200.8	ug/L	<1.00	1.00	KWILLI	06/04/13	11:22
Copper Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	06/04/13	11:22
Lead Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	06/04/13	11:22
Mercury Total	EPA 245.1	ug/L	<0.10	0.10	SWILLI	06/06/13	10:41
Nickel Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	06/04/13	11:22
Selenium Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	06/04/13	11:22
Silver Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	06/04/13	11:22
Thallium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	06/04/13	11:22
Zinc Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	06/04/13	11:22

Notes
[1] *Report Limit is lowest concentration at which quantitation is demonstrated.*

Authorization:
Lab Manager / QA Manager

Date: 06·07·13

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CENTRAL ENVIRONMENTAL LABORATORY
ANALYTICAL REPORT

Project: Western Virginia Water Authority
Customer Sample ID: Final Effluent
Project Code: WVWA
Sample Point: FNE
Sample Date: 05/29/13

Analyte	Method	Unit	Result	Report Limit[1]	Analyst	Analysis Date	Analysis Time
Antimony Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	06/04/13	11:29
Arsenic Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	06/04/13	11:29
Beryllium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	06/04/13	11:29
Cadmium Total	EPA 200.8	ug/L	<0.05	0.05	KWILLI	06/04/13	11:29
Chromium Total	EPA 200.8	ug/L	<1.00	1.00	KWILLI	06/04/13	11:29
Copper Total	EPA 200.8	ug/L	5.75	0.50	KWILLI	06/04/13	11:29
Lead Total	EPA 200.8	ug/L	0.14	0.10	KWILLI	06/04/13	11:29
Mercury Total	EPA 245.1	ug/L	<0.10	0.10	SWILLI	06/06/13	10:44
Nickel Total	EPA 200.8	ug/L	2.17	0.50	KWILLI	06/04/13	11:29
Selenium Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	06/04/13	11:29
Silver Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	06/04/13	11:29
Thallium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	06/04/13	11:29
Zinc Total	EPA 200.8	ug/L	14.5	1.0	KWILLI	06/04/13	11:29

Notes
[1] *Report Limit is lowest concentration at which quantitation is demonstrated.*

Authorization:
Lab Manager / QA Manager

Date: 06-07-13

CENTRAL ENVIRONMENTAL LABORATORY
QUALITY ASSURANCE REPORT
Level 1

Project:	**Western Virginia Water Authority**
Project Code:	**WVWA**
Sample Point:	**FNE**
Sample Date:	**05/29/13**

Analytical Run Information	**Sb**	**As**	**Be**	**Cd**	**Cr**	**Cu**	**Pb**	**Hg**	**Ni**	**Se**	**Ag**	**Tl**	**Zn**
Method	**200.8**	**200.8**	**200.8**	**200.8**	**200.8**	**200.8**	**200.8**	**245.1**	**200.8**	**200.8**	**200.8**	**200.8**	**200.8**
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Limit of Detection (LOD)	0.22	0.06	0.01	0.006	0.04	0.09	0.01	0.03	0.08	0.12	0.05	0.03	0.24
Limit of Quantitation (LOQ)	1.0	1.0	0.10	0.05	1.00	0.50	0.10	0.10	0.50	0.50	0.10	0.10	1.00
Method Blank (MB)	<0.22	<0.06	<0.01	<0.006	0.05*	<0.09	0.07*	<0.03	<0.08	<0.12	<0.05	<0.03	<0.24
Total Metals													
Sample ID: WVWA FNE													
Matrix Spike Conc.								1.0					
MS Percent Recovery								100%					
MSD Percent Recovery								99%					
MS/MSD RPD								<1					

*Report Limit is lowest concentration at which quantitation is demonstrated. Values below report limit should not be used for compliance determination due to a high degree of uncertainty.

Validated By: _____ **Date:** 6/6/13

CENTRAL ENVIRONMENTAL LABORATORY
1432 AIR RAIL AVENUE
VIRGINIA BEACH, VA 23455
TEL: 757-460-4214
FAX: 757-460-6586

CHAIN OF CUSTODY

PROJECT NAME/CODE: WWWA

ANALYSES REQUESTED, CGN & NUMBER OF CONTAINERS

Project in Lims? Yes ____ No ____

CUSTOMER SAMPLE ID	HRSD Use Only: PROJECT CODE	HRSD Use Only: SAMPLE POINT	DATE	TIME	SAMPLED BY	Circle One: MATRIX	Circle One: SAMPLE TYPE	Total Metals (6)														HRSD Use Only: Presv'd Checked	HRSD Use Only: CONT. COUNT
Field Blank	WWWA	FB	5/28-5/29/13	0946	LB	L	C	1														✓	1
Effluent	WWWA	FNE	"	"	LB	L	C	1														✓	1

COMMENTS:
Deliver via "Bonvex" - GH/11 5/30/13 GH/11

For Ground Water Use Only
Temp. Blank 1 ____ °C
Temp. Blank 2 ____ °C

Relinquished by / Signature	Jay Brant	Date/Time 5/29/13 3:25 pm
Received by / Signature	Paula Evans	Date/Time 5/29/13 3:25 pm
Relinquished by / Signature		Date/Time 5/30/13
Received by / Signature		Date/Time 5/30/13 0851
Relinquished by / Signature		Date/Time (5/30/13)
Received by / Signature		Date/Time
Relinquished by / Signature		Date/Time
Received by / Signature		Date/Time

Temp. Requirement

Where required, submitted samples were transported in coolers maintained at ≤ 6 °C.

Yes ✓ No ____

Init GH/11

***Preservatives**

- *Hg, Metals (pH<2 - HNO3) (Clean metals check in section)
- *O&G (pH<2 - HCl, check in section) & store ≤ 6 °C
- CN (pH>12 - NaOH) & store ≤ 6 °C
- *Sulfide (pH>9 - NaOH+ZnAc) & store ≤ 6 °C
- *Micro ($Na_2S_2O_3$ + EDTA) & store < 10 °C
- *COD, NUT, Phenols ($pH<2 - H_2SO_4$) & store ≤ 6 °C
- *TOC ($pH<2 - H_3PO_4$) & store ≤ 6 °C
- *BOD, TSS, TVSS, Turbidity, Surfactant, Sulfate store ≤ 6 °C
- *NUT Non Acidified, Conductivity, Organics store ≤ 6 °C
- *Cr (VI) (pH 9.3 - 9.7 - $(NH_4)_2SO_4$) & store ≤ 6 °C

All sample(s) met proper *preservation requirements. Yes ✓ No ____ Init GH/11

Sample Type: C=Composite, G=Grab Matrix: L= Liquid , S = Solid CGN: Container Group Number

NOTE: ALL APPLICABLE INFORMATION MUST BE COMPLETED PRIOR TO ACCEPTANCE.

REIC

Improving the environment, one client at a time...

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Wednesday, July 03, 2013

Ms. Janis Richardson
WESTERN VA WATER WWTP
1502 BROWNLEE AV SE
ROANOKE, VA 24014

TEL: (540) 853-1517
FAX: (540) 853-1307

RE: JUNE SAMPLING
Work Order #: 1306V19

Dear Ms. Janis Richardson:

REI Consultants, Inc. received 5 sample(s) on 6/27/2013 for the analyses presented in the following report.

Sincerely,

Joy Castle

Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1306V19

Date Reported: 7/3/2013

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
*: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460149, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094

REI Consultants, Inc. - Analytical Report

WO#: 1306V19

Date Reported: 7/3/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	6/27/2013 2:05:00 PM
Project:	JUNE SAMPLING	**Date Received:**	6/27/2013
Lab ID:	1306V19-01A	**Matrix:**	Waste Water
Client Sample ID:	001 - GRAB 1	**Site ID:**	001

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV			NA			
pH, SM4500H+ B	7.41			NA		S.U.	
Temperature, SM 2550B	20.2			NA		deg C	
OIL and GREASE		**Method: EPA1664A**					**Analyst: MC**
Oil & Grease	ND	2.0	5.0	NA		mg/L	7/3/2013 9:00 AM

REI Consultants, Inc. - Analytical Report

WO#: 1306V19

Date Reported: 7/3/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	6/27/2013 2:20:00 PM
Project:	JUNE SAMPLING	**Date Received:**	6/27/2013
Lab ID:	1306V19-02A	**Matrix:**	Waste Water
Client Sample ID:	001- GRAB 2	**Site ID:**	001

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV			NA			
pH, SM4500H+ B	7.34			NA		S.U.	
OIL and GREASE		**Method: EPA1664A**					**Analyst: MC**
Oil & Grease	ND	2.0	5.0	NA		mg/L	7/3/2013 9:00 AM

REI Consultants, Inc. - Analytical Report

WO#: 1306V19

Date Reported: 7/3/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	6/27/2013 2:35:00 PM
Project:	JUNE SAMPLING	**Date Received:**	6/27/2013
Lab ID:	1306V19-03A	**Matrix:**	Waste Water
Client Sample ID:	001 - GRAB 3	**Site ID:**	001

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV			NA			
pH, SM4500H+ B	7.32			NA		S.U.	
OIL and GREASE		**Method: EPA1664A**					**Analyst: MC**
Oil & Grease	ND	2.0	5.0	NA		mg/L	7/3/2013 9:00 AM

REI Consultants, Inc. - Analytical Report

WO#: 1306V19

Date Reported: 7/3/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	6/27/2013 2:50:00 PM
Project:	JUNE SAMPLING	**Date Received:**	6/27/2013
Lab ID:	1306V19-04A	**Matrix:**	Waste Water
Client Sample ID:	001 - GRAB 4	**Site ID:**	001

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV			NA			
pH, SM4500H+ B	7.29			NA		S.U.	
ACROLEIN BY E624		**Method: E624**					**Analyst: RB**
Acrolein	ND	5.0	10	NA		µg/L	6/28/2013 6:56 PM
VOLATILE ORGANIC COMPOUNDS		**Method: E624**					**Analyst: RB**
Benzene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Bromodichloromethane	4.3	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Bromoform	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Bromomethane	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Carbon tetrachloride	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Chlorobenzene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Chloroethane	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Chloroform	12.5	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Chloromethane	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Dibromochloromethane	1.2	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
1,2-Dichlorobenzene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
1,3-Dichlorobenzene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
1,4-Dichlorobenzene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
1,1-Dichloroethane	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
1,2-Dichloroethane	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
1,1-Dichloroethene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
trans-1,2-Dichloroethene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
1,2-Dichloropropane	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
cis-1,3-Dichloropropene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
trans-1,3-Dichloropropene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Ethylbenzene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Methylene chloride	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
1,1,2,2-Tetrachloroethane	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Tetrachloroethene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Toluene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
1,1,1-Trichloroethane	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
1,1,2-Trichloroethane	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Trichloroethene	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Trichlorofluoromethane	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Vinyl chloride	ND	0.5	1.0	NA		µg/L	6/28/2013 6:56 PM
Surr: 1,2-Dichloroethane-d4	84.1	NA	73.2-133	NA		%REC	6/28/2013 6:56 PM
Surr: Toluene-d8	107	NA	71-132	NA		%REC	6/28/2013 6:56 PM

REI Consultants, Inc. - Analytical Report

WO#: 1306V19

Date Reported: 7/3/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	6/27/2013 2:50:00 PM
Project:	JUNE SAMPLING	**Date Received:**	6/27/2013
Lab ID:	1306V19-04A	**Matrix:**	Waste Water
Client Sample ID:	001 - GRAB 4	**Site ID:**	001

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Surr: 4-Bromofluorobenzene	103	NA	74.2-129	NA		%REC	6/28/2013 6:56 PM
VOLATILE ORGANIC COMPOUNDS-624		**Method: E624**					**Analyst: RB**
2-Chloroethyl vinyl ether	ND	2.5	5.0	NA		µg/L	6/28/2013 6:56 PM
Acrylonitrile	ND	5.0	10	NA		µg/L	6/28/2013 6:56 PM
4-Methyl-2-pentanone	ND	5.0	10	NA		µg/L	6/28/2013 6:56 PM
Surr: 1,2-Dichloroethane-d4	84.1	NA	73.2-133	NA		%REC	6/28/2013 6:56 PM
Surr: Toluene-d8	107	NA	71-132	NA		%REC	6/28/2013 6:56 PM
Surr: 4-Bromofluorobenzene	103	NA	74.2-129	NA		%REC	6/28/2013 6:56 PM
OIL and GREASE		**Method: EPA1664A**					**Analyst: MC**
Oil & Grease	ND	2.0	5.0	NA		mg/L	7/3/2013 9:00 AM
PHENOLICS		**Method: E420.1**					**Analyst: BA**
Phenolics	ND	0.005	0.010	NA		mg/L	7/2/2013 12:00 PM
Cyanide		**Method: E335.4**					**Analyst: AL**
Cyanide, Total	ND	0.005	0.020	NA		mg/L	6/28/2013 11:23 AM

REI Consultants, Inc. - QC SUMMARY REPORT

WS 1306V19

Date Reported: 7/3/2013

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING

Test Code: 1664_HEM

Sample ID:	LCS-R306792	Samp Type:	LCS	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	306792	
Client ID:	LCSW	Batch ID:	R306792	TestNo:	EPA1664A			Analysis Date:	7/3/2013	SeqNo:	4574831	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		37.9	5.0	40.0	0	94.8	77.9	114.1				

Sample ID:	LCSD-R306792	Samp Type:	LCSD	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	306792	
Client ID:	LCSS02	Batch ID:	R306792	TestNo:	EPA1664A			Analysis Date:	7/3/2013	SeqNo:	4574832	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		33.8	5.0	40.0	0	84.5	77.9	114.1	37.9	11.4	20	

Sample ID:	MB-R306792	Samp Type:	MBLK	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	306792	
Client ID:	PBW	Batch ID:	R306792	TestNo:	EPA1664A			Analysis Date:	7/3/2013	SeqNo:	4574833	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		ND	5.0									

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING **Test Code:** 624_ACROLEIN

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_ACROLEIN	Units:	µg/L	Prep Date:		RunNo:	306633	
Client ID:	LCSW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/28/2013	SeqNo:	4571492	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Acrolein	91	10	100.0	0	90.7	70	130					

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_ACROLEIN	Units:	µg/L	Prep Date:		RunNo:	306633	
Client ID:	PBW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/28/2013	SeqNo:	4571493	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Acrolein	ND	10										

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_ACROLEIN	Units:	µg/L	Prep Date:		RunNo:	306633	
Client ID:	LCSW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/29/2013	SeqNo:	4574429	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Acrolein	110	10	100.0	0	108	70	130					

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_ACROLEIN	Units:	µg/L	Prep Date:		RunNo:	306633	
Client ID:	PBW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/29/2013	SeqNo:	4574430	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Acrolein	ND	10										

REI Consultants, Inc. - QC SUMMARY REPORT

W 1306V19

Date Reported: 7/3/2013

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING **Test Code:** 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	306633	
Client ID:	LCSW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/28/2013	SeqNo:	4571484	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	8.6	1.0	10	0	86.1	77	150				
Bromodichloromethane	8.6	1.0	10	0	85.7	17	157				
Bromoform	7.7	1.0	10	0	77.3	22	157				
Bromomethane	4.8	1.0	10	0	48.1	0	242				
Carbon tetrachloride	8.9	1.0	10	0	89.4	59	127				
Chlorobenzene	9.9	1.0	10	0	99.4	91	151				
Chloroethane	10.1	1.0	10	0	101	0	258				
Chloroform	8.7	1.0	10	0	87.2	50	153				
Chloromethane	8.2	1.0	10	0	81.9	0	279				
Dibromochloromethane	8.8	1.0	10	0	87.7	47	154				
1,2-Dichlorobenzene	8.9	1.0	10	0	88.9	67	211				
1,3-Dichlorobenzene	9.6	1.0	10	0	96.1	89	157				
1,4-Dichlorobenzene	9.1	1.0	10	0	91.4	67	211				
1,1-Dichloroethane	12.5	1.0	10	0	125	55	163				
1,2-Dichloroethane	8.2	1.0	10	0	81.7	61	152				
1,1-Dichloroethene	8.9	1.0	10	0	88.9	0	237				
trans-1,2-Dichloroethene	8.4	1.0	10	0	84.0	52	158				
1,2-Dichloropropane	8.2	1.0	10	0	82.2	0	210				
cis-1,3-Dichloropropene	7.6	1.0	10	0	75.7	0	227				
trans-1,3-Dichloropropene	8.4	1.0	10	0	83.7	17	183				
Ethylbenzene	9.5	1.0	10	0	95.3	87	159				
Methylene chloride	5.9	1.0	10	0	59.1	0	286				
1,1,2,2-Tetrachloroethane	9.5	1.0	10	0	94.8	47	175				
Tetrachloroethene	9.6	1.0	10	0	96.2	79	145				
Toluene	9.3	1.0	10	0	93.3	79	145				
1,1,1-Trichloroethane	9.3	1.0	10	0	92.9	65	162				
1,1,2-Trichloroethane	8.9	1.0	10	0	89.4	63	161				
Trichloroethene	8.6	1.0	10	0	85.9	75	178				
Trichlorofluoromethane	6.9	1.0	10	0	69.0	27	179				
Vinyl chloride	6.6	1.0	10	0	66.3	0	259				

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING **Test Code:** 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	306633
Client ID:	LCSW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/28/2013	SeqNo:	4571484

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.7		10		96.7	74	140				
Surr: Toluene-d8	10.6		10		106	71.1	126				
Surr: 4-Bromofluorobenzene	10.6		10		106	75.9	129				

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	306633
Client ID:	PBW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/28/2013	SeqNo:	4571485

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
Dibromochloromethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
1,2-Dichloropropane	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
Ethylbenzene	ND	1.0									
Methylene chloride	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING **Test Code:** 624_L

Sample ID: **BLANK** Samp Type: **MBLK** Test Code: **624_L** Units: **µg/L** Prep Date: RunNo: **306633**

Client ID: **PBW** Batch ID: **R306633** TestNo: **E624** Analysis Date: **6/28/2013** SeqNo: **4571485**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Tetrachloroethene	ND	1.0									
Toluene	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	1.0									
Surr: 1,2-Dichloroethane-d4	10.4		10		104	73.2	133				
Surr: Toluene-d8	10.6		10		106	71	132				
Surr: 4-Bromofluorobenzene	10.5		10		105	74.2	129				

Sample ID: **8260/624 LCS** Samp Type: **LCS** Test Code: **624_L** Units: **µg/L** Prep Date: RunNo: **306633**

Client ID: **LCSW** Batch ID: **R306633** TestNo: **E624** Analysis Date: **6/29/2013** SeqNo: **4574417**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	10.1	1.0	10	0	101	77	150				
Bromodichloromethane	9.8	1.0	10	0	98.4	17	157				
Bromoform	8.7	1.0	10	0	87.3	22	157				
Bromomethane	5.8	1.0	10	0	57.9	0	242				
Carbon tetrachloride	10.9	1.0	10	0	109	59	127				
Chlorobenzene	11.4	1.0	10	0	114	91	151				
Chloroethane	9.9	1.0	10	0	98.7	0	258				
Chloroform	10.1	1.0	10	0	101	50	153				
Chloromethane	8.7	1.0	10	0	87.0	0	279				
Dibromochloromethane	10	1.0	10	0	101	47	154				
1,2-Dichlorobenzene	10.6	1.0	10	0	106	67	211				
1,3-Dichlorobenzene	10.9	1.0	10	0	109	89	157				
1,4-Dichlorobenzene	10.3	1.0	10	0	103	67	211				
1,1-Dichloroethane	14.6	1.0	10	0	146	55	163				
1,2-Dichloroethane	9.8	1.0	10	0	97.9	61	152				
1,1-Dichloroethene	10.2	1.0	10	0	102	0	237				

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING **Test Code:** 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	306633
Client ID:	LCSW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/29/2013	SeqNo:	4574417

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	9.8	1.0	10	0	98.1	52	158				
1,2-Dichloropropane	9.1	1.0	10	0	90.9	0	210				
cis-1,3-Dichloropropene	8.7	1.0	10	0	87.1	0	227				
trans-1,3-Dichloropropene	9.9	1.0	10	0	99.4	17	183				
Ethylbenzene	11.1	1.0	10	0	111	87	159				
Methylene chloride	7.5	1.0	10	0	75.4	0	286				
1,1,2,2-Tetrachloroethane	10.1	1.0	10	0	101	47	175				
Tetrachloroethene	11.4	1.0	10	0	114	79	145				
Toluene	10.7	1.0	10	0	107	79	145				
1,1,1-Trichloroethane	10.8	1.0	10	0	108	65	162				
1,1,2-Trichloroethane	9.4	1.0	10	0	93.7	63	161				
Trichloroethene	9.8	1.0	10	0	97.6	75	178				
Trichlorofluoromethane	8.4	1.0	10	0	83.7	27	179				
Vinyl chloride	8.4	1.0	10	0	83.8	0	259				
Surr: 1,2-Dichloroethane-d4	9.4		10		94.4	74	140				
Surr: Toluene-d8	10.9		10		109	71.1	126				
Surr: 4-Bromofluorobenzene	10.5		10		105	75.9	129				

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	306633
Client ID:	PBW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/29/2013	SeqNo:	4574418

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING **Test Code:** 624_L

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	306633
Client ID:	PBW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/29/2013	SeqNo:	4574418

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Dibromochloromethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
1,2-Dichloropropane	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
Ethylbenzene	ND	1.0									
Methylene chloride	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
Tetrachloroethene	ND	1.0									
Toluene	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	1.0									
Surr: 1,2-Dichloroethane-d4	10.5		10		105	73.2	133				
Surr: Toluene-d8	10.6		10		106	71	132				
Surr: 4-Bromofluorobenzene	10.5		10		105	74.2	129				

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING **Test Code:** 624_SUP_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_SUP_L	Units:	µg/L	Prep Date:		RunNo:	306633
Client ID:	LCSW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/28/2013	SeqNo:	4571488

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	37.1	5.0	50.0	0	74.2	70	130				
Acrylonitrile	71.2	10	100	0	71.2	70	130				
4-Methyl-2-pentanone	79.4	10	100	0	79.4	70	130				
Surr: 1,2-Dichloroethane-d4	9.7		10		96.7	76	114				
Surr: Toluene-d8	10.6		10		106	88	110				
Surr: 4-Bromofluorobenzene	10.6		10		106	86	115				

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_SUP_L	Units:	µg/L	Prep Date:		RunNo:	306633
Client ID:	PBW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/28/2013	SeqNo:	4571489

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	ND	5.0									
Acrylonitrile	ND	10									
4-Methyl-2-pentanone	ND	10									
Surr: 1,2-Dichloroethane-d4	10.4		10		104	73.2	133				
Surr: Toluene-d8	10.6		10		106	71	132				
Surr: 4-Bromofluorobenzene	10.5		10		105	74.2	129				

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_SUP_L	Units:	µg/L	Prep Date:		RunNo:	306633
Client ID:	LCSW	Batch ID:	R306633	TestNo:	E624			Analysis Date:	6/29/2013	SeqNo:	4574423

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	36.3	5.0	50.0	0	72.6	70	130				
Acrylonitrile	71.8	10	100	0	71.8	70	130				
4-Methyl-2-pentanone	85.8	10	100	0	85.8	70	130				
Surr: 1,2-Dichloroethane-d4	9.4		10		94.4	76	114				
Surr: Toluene-d8	10.9		10		109	88	110				
Surr: 4-Bromofluorobenzene	10.5		10		105	86	115				

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING **Test Code:** 624_SUP_L

Sample ID: **BLANK** Samp Type: **MBLK** Test Code: **624_SUP_L** Units: **µg/L** Prep Date: RunNo: **306633**

Client ID: **PBW** Batch ID: **R306633** TestNo: **E624** Analysis Date: **6/29/2013** SeqNo: **4574424**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	ND	5.0									
Acrylonitrile	ND	10									
4-Methyl-2-pentanone	ND	10									
Surr: 1,2-Dichloroethane-d4	10.5		10		105	73.2	133				
Surr: Toluene-d8	10.6		10		106	71	132				
Surr: 4-Bromofluorobenzene	10.5		10		105	74.2	129				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1306V19

Date Reported: 7/3/2013

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING

Test Code: CN_335.4

Sample ID:	MB-44404	Samp Type:	MBLK	Test Code:	CN_335.4	Units:	mg/L	Prep Date:	6/28/2013	RunNo:	306525	
Client ID:	PBW	Batch ID:	44404	TestNo:	E335.4			Analysis Date:	6/28/2013	SeqNo:	4569451	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyanide, Total		ND	0.020									

Sample ID:	LCS-44404	Samp Type:	LCS	Test Code:	CN_335.4	Units:	mg/L	Prep Date:	6/28/2013	RunNo:	306525	
Client ID:	LCSW	Batch ID:	44404	TestNo:	E335.4			Analysis Date:	6/28/2013	SeqNo:	4569452	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyanide, Total		0.099	0.020	0.100	0	98.7	89.9	110.1				

Sample ID:	LCSD-44404	Samp Type:	LCS	Test Code:	CN_335.4	Units:	mg/L	Prep Date:	6/28/2013	RunNo:	306525	
Client ID:	LCSW	Batch ID:	44404	TestNo:	E335.4			Analysis Date:	6/28/2013	SeqNo:	4569453	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyanide, Total		0.096	0.020	0.100	0	95.8	89.9	110.1				

Client: WESTERN VA WATER WWTP

Project: JUNE SAMPLING **Test Code:** PHENOLICS_L

Sample ID:	MB-R306754	Samp Type:	MBLK	Test Code:	PHENOLICS_L	Units:	mg/L	Prep Date:		RunNo:	306754	
Client ID:	PBW	Batch ID:	R306754	TestNo:	E420.1			Analysis Date:	7/2/2013	SeqNo:	4573981	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Phenolics		ND	0.010									

Sample ID:	LCS-R306754	Samp Type:	LCS	Test Code:	PHENOLICS_L	Units:	mg/L	Prep Date:		RunNo:	306754	
Client ID:	LCSW	Batch ID:	R306754	TestNo:	E420.1			Analysis Date:	7/2/2013	SeqNo:	4573982	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Phenolics		0.101	0.010	0.100	0	101	89.9	110.1				

475:09

CHAIN OF CUSTODY RECORD

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Ashland, KY 41101
606-393-5027

SHENANDOAH Service Center
1557 Commerce Rd., Ste 201
Verona, VA 24482
540-248-0183

ROANOKE Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

MORGANTOWN Service Center
16 Commerce Drive
Westover, WV 26501
304-241-5861

Client: WVUA PO #:
Contact Person: Lewis Richardson Phone: (540) 853-1517
QUOTE #: Fax: Email:
Address: City: State: Zip:
Billing Address (if different):
City: State: Zip:
Site ID & State: 001 Project ID: June Sampling Sampler: Matt Weis

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: ☑ NORMAL — RUSH TURNAROUND: ☐ 5 DAY ☐ 3 DAY ☐ 2 DAY ☐ 1 DAY
*Rush work needs prior laboratory approval and will incur additional charges

ANALYSIS & METHOD REQUESTED: TTO 624; 1664 O&G; Cyanide; Total Phenolics

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	#	1	5	3					
001 Grab 1		6-27-13 / 1405	ww	G	X	X	4	X					
001 Grab 2		6-27-13 / 1420			X	X	X	X					
001 Grab 3		6-27-13 / 1435			X	X	X	X					
001 Grab 4		6-27-13 / 1450	↓	↓	X	X	X	X					

ENTER PRESERVATIVE CODE:
0 None; 1 Hydrochloric Acid; 2 Nitric Acid; 3 Sulfuric Acid; 4 Sodium Thiosulfate; 5 Sodium Hydroxide; 6 Zinc Acetate; 7 EDTA; 8 Ascorbic Acid

COMMENTS:

	pH	Temp °C
1.	7.41	20.2
2.	7.34	20.5
3.	7.32	21.9
4.	7.29	21.0

All analytical requests are subject to REIC's Standard Terms and Conditions.

Temperature at arrival: 2 °C ICED? Y ✓ N

Containers provided by: ☑ REIC [ ] Client

Relinquished by (Signature)	Date/Time	Relinquished by (Signature)	Date/Time
	6-27-13 1600		
Received by (Signature)	Date/Time	Received by (Signature)	Date/Time
	6-27-13 1600		

FAX RESULTS ☐ EMAIL RESULTS ☐

SHIPMENT: ___ Hand Delivered ✓ Courier ___ UPS ___ FedEx ___ USPS ___ OTHER

COC-NCR-050213

475913

CHAIN OF CUSTODY RECORD

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SHENANDOAH Service Center, 1557 Commerce Rd., Ste 201, Verona, VA 24482, 540-248-0183
ROANOKE Service Center, 3029-C Peters Creek Rd, Roanoke, VA 24019, 540-777-1276
MORGANTOWN Service Center, 16 Commerce Drive, Westover, WV 26501, 304-241-5861

Client: WVWA PO #:
Contact Person: Janis Richardson Phone: 540-853-1517
QUOTE #: Fax: Email:
Address: City: State: Zip:
Billing Address (if different): City: State: Zip:
Site ID & State: 001 Project ID: June Sampling Sampler: Matt Vess

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: [ ] NORMAL
RUSH TURNAROUND: [ ] 5 DAY [ ] 3 DAY [ ] 2 DAY [ ] 1 DAY
*Rush work needs prior laboratory approval and will incur additional charges

ANALYSIS & METHOD REQUESTED:
1. TTO
2. NH3 NO2 NO3
3. TDS
4. Hardness (Metals on hold)
5.
6. ~~O&G~~
7.
8.
9.

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	0	3	0	2		1			
001 - Comp		6-28-13/1405	ww	Grb	x	x	x	x					
~~001 Grab 4 O&G~~	6-28-13 AV	6-28-13/1410	ww	Grab						x			

ENTER PRESERVATIVE CODE:
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA
8 Ascorbic Acid

COMMENTS:

All analytical requests are subject to REIC's Standard Terms and Conditions.

Temperature at arrival: °C ICED? Y ✓ N___

Containers provided by: [✓] REIC [ ] Client

1	Relinquished by (signature): [signature]	Date/Time: 6-28-13 1545	2	Relinquished by (signature):	Date/Time:
	Received by (signature): Katie Broyles	Date/Time: 6-28-13 1545		Received by (signature):	Date/Time:

FAX RESULTS [ ] EMAIL RESULTS [ ]

SHIPMENT: ___ Hand Delivered ___ Courier ___ UPS ___ FEDEX ___ USPS ___ OTHER

COC-NCR-050213

405309

CHAIN OF CUSTODY RECORD

REIC

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MID-OHIO VALLEY Service Center	SHENANDOAH Service Center	ROANOKE Service Center	MORGANTOWN Service Center
101 17th Street, Ashland, KY 41101, 606-393-5027	1557 Commerce Rd., Ste 201, Verona, VA 24482, 540-248-0183	3029-C Peters Creek Rd, Roanoke, VA 24019, 540-777-1276	16 Commerce Drive, Westover, WV 26501, 304-241-5861

Client: WVWA PO #:
Contact Person: Janis Richardson Phone: (540) 853-1517
QUOTE #: Fax: Email:
Address: City: State: Zip:
Billing Address (if different):
City: State: Zip:
Site ID & State: 001 Project ID: June Sampling Sampler: Matt Veas

ANALYSIS & METHOD REQUESTED:
- TTO 624
- 1664 O&G
- Cyanide
- Total Phenolics

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: ✓ NORMAL

RUSH TURNAROUND: ☐ 5 DAY ☐ 3 DAY ☐ 2 DAY ☐ 1 DAY

*Rush work needs prior laboratory approval and will incur additional charges

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	0/1	1	5	3
001 Grab 1		6-27-13 / 1405	ww	G	X	X	X	X
001 Grab 2		6-27-13 / 1420	↓	↓	X	X	X	X
001 Grab 3		6-27-13 / 1435	↓	↓	X	X	X	X
001 Grab 4		6-27-13 / 1450	↓	↓	X	X	X	X

ENTER PRESERVATIVE CODE:
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA
8 Ascorbic Acid

COMMENTS:

	pH	Temp °C
1.	7.41	20.2
2.	7.34	20.5
3.	7.32	21.9
4.	7.29	21.0

All analytical requests are subject to REIC's Standard Terms and Conditions.

Temperature at arrival: 2 °C ICED? Y ✓ N ___

Containers provided by: [✓] REIC [ ] Client

	Signature	Date/Time		Signature	Date/Time
1	Relinquished by (signature): [signature]	6-27-13 / 1600	2	Relinquished by (signature):	Date/Time
	Received by (signature): [signature]	6-27-13 / 1600		Received by (signature):	Date/Time

FAX RESULTS ☐ EMAIL RESULTS ☐

SHIPMENT: ___ Hand Delivered ✓ Courier ___ UPS ___ FEDEX ___ USPS ___ OTHER

COC-NCR-050213

4?5?13

CHAIN OF CUSTODY RECORD

REIC

Research Environmental & Industrial Consultants, Inc.
MAIN LABORATORY & CORPORATE HEADQUARTERS:
P.O. Box 286 • 225 Industrial Park Rd, Beaver, WV 25813
800-999-0105 • 304-255-2500 • www.reiclabs.com

MID-OHIO VALLEY Service Center, 101 17th Street, Ashland, KY 41101, 606-393-5027
SHENANDOAH Service Center, 1557 Commerce Rd., Ste 201, Verona, VA 24482, 540-248-0183
ROANOKE Service Center, 3029-C Peters Creek Rd, Roanoke, VA 24019, 540-777-1276
MORGANTOWN Service Center, 16 Commerce Drive, Westover, WV 26501, 304-241-5861

Client: WVWA
PO #:
Contact Person: Jenis Richardson
Phone: 540-853-1517
QUOTE #: Fax: Email:
Address: City: State: Zip:
Billing Address (if different):
City: State: Zip:
Site ID & State: 001 Project ID: June Sampling Sampler: Matt Kess

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME
☐ NORMAL
RUSH TURNAROUND: ☐ 5 DAY ☐ 3 DAY ☐ 2 DAY ☐ 1 DAY
*Rush work needs prior laboratory approval and will incur additional charges

ANALYSIS & METHOD REQUESTED:
- TTO
- NH3 NO2 NO3
- TDS
- Hardness (Metals on hold)
- ~~O&G~~

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	0	3	0	2		1			
001 - Comp		6-28-13/1405	ww	Comp	X	X	X	X					
~~001 Grab 4 O&G~~	~~6-28-13 AV~~	~~6-28-13/1430~~	~~ww~~	~~Grab~~						~~X~~			

ENTER PRESERVATIVE CODE:
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA
8 Ascorbic Acid

COMMENTS:

All analytical requests are subject to REIC's Standard Terms and Conditions.

Temperature at arrival: °C ICED? Y ✓ N

Containers provided by: [✓] REIC [ ] Client

1 Relinquished by (signature): Matt Kess	Date/Time: 6-28-13 1545	2 Relinquished by (signature):	Date/Time:
Received by (signature): Katie Broyles	Date/Time: 6-28-13 1545	Received by (signature):	Date/Time:

FAX RESULTS ☐ EMAIL RESULTS ☐

SHIPMENT: __ Hand Delivered __ Courier __ UPS __ FEDEX __ USPS __ OTHER

COC-NCR-050213

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06/27/13 - Western Virginia Water Authority

This analytical report contains 5 pages

Janis Richardson
Environmental Programs Coordinator
Western Virginia Water Authority
1502 Brownlee Avenue, SE
Roanoke, VA 24014

Janis.Richardson@WesternVaWater.org

Date Sent: **07/16/13**

HRSD CEL, Central Environmental Laboratory is VELAP/NELAC accredited by DCLS, the Division of Consolidated Laboratory Services.

VA Laboratory ID#: 460011
Effective Date: June 15, 2013
Expiration Date: June 14, 2014
Certificate # 2354

Analytical test results meet all requirements of VELAP/NELAC unless otherwise noted under the analysis.

Test results relate only to the sample tested. Clients should be aware that a critical step in chemical or microbiological analysis is the collection of the sample.

If you have any questions concerning this report, please do not hesitate to contact
Danny Barker, TSD Environmental Scientist at (757) 460-4247
dbarker@hrsd.com
Robin Parnell, CEL Laboratory Manager at (757) 460-4203.
rparnell@hrsd.com
Cindi Reno, CEL Administrative Assistant at (757) 460-4205.
creno@hrsd.com

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CENTRAL ENVIRONMENTAL LABORATORY
ANALYTICAL REPORT

Project: Western Virginia Water Authority
Customer Sample ID: Field Blank
Project Code: WVWA
Sample Point: FB
Sample Date: 06/27/13

Analyte	Method	Unit	Result	Report Limit[1]	Analyst	Analysis Date	Analysis Time
Antimony Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	07/08/13	14:33
Arsenic Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	07/08/13	14:33
Beryllium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	07/08/13	14:33
Cadmium Total	EPA 200.8	ug/L	<0.05	0.05	KWILLI	07/08/13	14:33
Chromium Total	EPA 200.8	ug/L	<1.00	1.00	KWILLI	07/08/13	14:33
Copper Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	07/08/13	14:33
Lead Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	07/08/13	14:33
Mercury Total	EPA 245.1	ug/L	<0.10	0.10	SWILLI	07/03/13	10:07
Nickel Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	07/08/13	14:33
Selenium Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	07/08/13	14:33
Silver Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	07/08/13	14:33
Thallium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	07/09/13	13:18
Zinc Total	EPA 200.8	ug/L	1.2	1.0	KWILLI	07/08/13	14:33

Notes
[1] *Report Limit is lowest concentration at which quantitation is demonstrated.*

Authorization: _____ **Date:** 7/16/13
Lab Manager / QA Manager

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CENTRAL ENVIRONMENTAL LABORATORY
ANALYTICAL REPORT

Project: Western Virginia Water Authority
Customer Sample ID: Final Effluent
Project Code: WVWA
Sample Point: FNE
Sample Date: 06/27/13

Analyte	Method	Unit	Result	Report Limit[1]	Analyst	Analysis Date	Analysis Time
Antimony Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	07/08/13	14:30
Arsenic Total	EPA 200.8	ug/L	<1.0	1.0	KWILLI	07/08/13	14:30
Beryllium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	07/08/13	14:30
Cadmium Total	EPA 200.8	ug/L	<0.05	0.05	KWILLI	07/08/13	14:30
Chromium Total	EPA 200.8	ug/L	<1.00	1.00	KWILLI	07/08/13	14:30
Copper Total	EPA 200.8	ug/L	5.53	0.50	KWILLI	07/08/13	14:30
Lead Total	EPA 200.8	ug/L	0.18	0.10	KWILLI	07/08/13	14:30
Mercury Total	EPA 245.1	ug/L	<0.10	0.10	SWILLI	07/03/13	10:11
Nickel Total	EPA 200.8	ug/L	3.46	0.50	KWILLI	07/08/13	14:30
Selenium Total	EPA 200.8	ug/L	<0.50	0.50	KWILLI	07/08/13	14:30
Silver Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	07/08/13	14:30
Thallium Total	EPA 200.8	ug/L	<0.10	0.10	KWILLI	07/09/13	13:25
Zinc Total	EPA 200.8	ug/L	15.5	1.0	KWILLI	07/08/13	14:30

Notes
[1] *Report Limit is lowest concentration at which quantitation is demonstrated.*

Authorization: _____
Lab Manager / QA Manager

Date: 7/16/13

CENTRAL ENVIRONMENTAL LABORATORY
QUALITY ASSURANCE REPORT
Level 1

HRSD
Cleaning wastewater every day for a better Bay.

Project:	**Western Virginia Water Authority**
Project Code:	**WVWA**
Sample Point:	**FB:FNE**
Sample Date:	**06/27/13**

Analytical Run Information	**Sb**	**As**	**Be**	**Cd**	**Cr**	**Cu**	**Pb**	**Hg**	**Ni**	**Se**	**Ag**	**Tl**	**Zn**
Method	**200.8**	**200.8**	**200.8**	**200.8**	**200.8**	**200.8**	**200.8**	**245.1**	**200.8**	**200.8**	**200.8**	**200.8**	**200.8**
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Limit of Detection (LOD)	0.22	0.06	0.01	0.006	0.04	0.09	0.01	0.03	0.08	0.12	0.05	0.03	0.24
Limit of Quantitation (LOQ)	1.0	1.0	0.10	0.05	1.00	0.50	0.10	0.10	0.50	0.50	0.10	0.10	1.00
Method Blank (MB)	<0.22	<0.06	0.02*	0.011*	<0.04	<0.09	<0.01	<0.03	<0.08	<0.12	<0.05	<0.03	<0.24
Total Metals													
Sample ID: WVWA FNE													
Matrix Spike Conc.	5.0	5.0	0.5	0.25	5.0	12.5	0.5		2.5	2.5	0.5	0.5	25.0
MS Percent Recovery	101%	98%	90%	98%	99%	97%	101%		93%	96%	95%	102%	92%
MSD Percent Recovery	100%	96%	92%	101%	95%	92%	100%		86%	94%	96%	103%	90%
MS/MSD RPD	1	1	2	3	3	3	1		3	2	1	1	2

*Report Limit is lowest concentration at which quantitation is demonstrated. Values below report limit should not be used for compliance determination due to a high degree of uncertainty.

Validated By: _____ **Date:** 7/16/13

HRSD

CENTRAL ENVIRONMENTAL LABORATORY
1432 AIR RAIL AVENUE
VIRGINIA BEACH, VA 23455
TEL: 757-460-4214
FAX: 757-460-6586

CHAIN OF COUSTODY

PROJECT NAME/CODE: WVWA

ANALYSES REQUESTED, CGN & NUMBER OF CONTAINERS

Project in Lims? Yes ____ No ____

CUSTOMER SAMPLE ID	PROJECT CODE (HRSD Use Only)	SAMPLE POINT (HRSD Use Only)	DATE	TIME	SAMPLED BY	MATRIX (Circle One)	SAMPLE TYPE (Circle One)	Total Metals (S)		Presv'd Checked (HRSD Use Only)	CONT. COUNT (HRSD Use Only)
Field Blank	WVWA	FB	06/26/13-06/27/13	1135-1135	[illegible]	L	C	1	✓	✓	1
Effluent	WVWA	FNE	↓	↓	↓	L	C	1	✓	✓	1

COMMENTS: Delivered via "Beavex" - [initials] 6/28/13

For Ground Water Use Only
Temp. Blank1 ____ °C
Temp. Blank2 ____ °C

Relinquished by / Signature [signature]	Date/Time 6/27/13 1355
Received by / Signature [signature]	Date/Time 6/27/13 13:55
Relinquished by / Signature	Date/Time
Received by / Signature [signature]	Date/Time 6/28/13 1000
Relinquished by / Signature	Date/Time
Received by / Signature	Date/Time
Relinquished by / Signature	Date/Time
Received by / Signature	Date/Time

Temp. Requirement

Where required, submitted samples were transported in coolers maintained at ≤ 6 °C.

Yes ✓ No ____

Int [initials]

***Preservatives**

- *Hg, Metals (pH<2 - HNO3) (Clean metals check in section)
- *O&G (pH<2 - HCl, check in section) & store ≤ 6 °C
- CN^- (pH>12 - NaOH) & store ≤ 6 °C
- *Sulfide (pH>9 - NaOH+ZnAc) & store ≤ 6 °C
- *Micro ($Na_2S_2O_3$ + EDTA) & store < 10 °C
- *COD, NUT, Phenols (pH<2 - H_2SO_4) & store ≤ 6 °C
- *TOC (pH<2 - H_3PO_4) & store ≤ 6 °C
- *BOD, TSS, TVSS, Turbidity, Surfactant, Sulfate store ≤ 6 °C
- *NUT Non Acidified, Conductivity, Organics store ≤ 6 °C
- *Cr (VI) (pH 9.3 - 9.7 - $(NH_4)_2SO_4$) & store ≤ 6 °C

All sample(s) met proper *preservation requirements. Yes ✓ No ____ Int [initials]

Sample Type: C=Composite, G=Grab   Matrix: L= Liquid , S = Solid   CGN: Container Group Number

NOTE: ALL APPLICABLE INFORMATION MUST BE COMPLETED PRIOR TO ACCEPTANCE.

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: 304.255.2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

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TEL: 540.777.1276

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Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.248.0183

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Thursday, August 08, 2013

Ms. Janis Richardson
WESTERN VA WATER WWTP
1502 BROWNLEE AV SE
ROANOKE, VA 24014

TEL: (540) 853-1517
FAX: (540) 853-1307

RE: 001 GRABS AND COMP
Work Order #: 1307S63

Dear Ms. Janis Richardson:

REI Consultants, Inc. received 5 sample(s) on 7/29/2013 for the analyses presented in the following report.

Sincerely,

Joy Castle
Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1307S63

Date Reported: 8/8/2013

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

Please note if the sample collection time is not provided on the Chain of Custody, the default recording will be 0:00:00. This may cause some tests to be apparently analyzed out of hold.

All tests performed by REIC Service Centers are designated by an annotation on the test code. All other tests were performed by REIC's Main Laboratory in Beaver, WV.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
*: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460149, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094, WV 389
Morgantown, WV: WVDHHR 003112M, WVDEP 387

REI Consultants, Inc. - Analytical Report

WO#: 1307S63

Date Reported: 8/8/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	7/29/2013 12:30:00 PM
Project:	001 GRABS AND COMP	**Date Received:**	7/29/2013
Lab ID:	1307S63-01A	**Matrix:**	Waste Water
Client Sample ID:	001 GRAB 1	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV			NA			
OIL and GREASE		**Method: EPA1664A**					**Analyst: JJ**
Oil & Grease	ND	2.0	5.0	NA		mg/L	7/30/2013 8:30 AM

REI Consultants, Inc. - Analytical Report

WO#: 1307S63

Date Reported: 8/8/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	7/29/2013 12:45:00 PM
Project:	001 GRABS AND COMP	**Date Received:**	7/29/2013
Lab ID:	1307S63-02A	**Matrix:**	Waste Water
Client Sample ID:	001 GRAB 2	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV			NA			
OIL and GREASE		**Method: EPA1664A**					**Analyst: JJ**
Oil & Grease	ND	2.0	5.0	NA		mg/L	7/30/2013 8:30 AM

REI Consultants, Inc. - Analytical Report

WO#: 1307S63

Date Reported: 8/8/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	7/29/2013 1:00:00 PM
Project:	001 GRABS AND COMP	**Date Received:**	7/29/2013
Lab ID:	1307S63-03A	**Matrix:**	Waste Water
Client Sample ID:	001 GRAB 3	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV			NA			
OIL and GREASE		**Method: EPA1664A**					**Analyst: JJ**
Oil & Grease	ND	2.0	5.0	NA		mg/L	7/30/2013 8:30 AM

REI Consultants, Inc. - Analytical Report

WO#: 1307S63

Date Reported: 8/8/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	7/29/2013 1:15:00 PM
Project:	001 GRABS AND COMP	**Date Received:**	7/29/2013
Lab ID:	1307S63-04A	**Matrix:**	Waste Water
Client Sample ID:	001 GRAB 4	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV			NA			
ACROLEIN BY E624		**Method: E624**					**Analyst: RB**
Acrolein	ND	5.0	10	NA		µg/L	7/30/2013 5:14 PM
VOLATILE ORGANIC COMPOUNDS		**Method: E624**					**Analyst: RB**
Benzene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Bromodichloromethane	4.5	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Bromoform	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Bromomethane	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Carbon tetrachloride	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Chlorobenzene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Chloroethane	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Chloroform	11.9	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Chloromethane	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Dibromochloromethane	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
1,2-Dichlorobenzene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
1,3-Dichlorobenzene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
1,4-Dichlorobenzene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
1,1-Dichloroethane	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
1,2-Dichloroethane	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
1,1-Dichloroethene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
trans-1,2-Dichloroethene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
1,2-Dichloropropane	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
cis-1,3-Dichloropropene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
trans-1,3-Dichloropropene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Ethylbenzene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Methylene chloride	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
1,1,2,2-Tetrachloroethane	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Tetrachloroethene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Toluene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
1,1,1-Trichloroethane	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
1,1,2-Trichloroethane	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Trichloroethene	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Trichlorofluoromethane	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Vinyl chloride	ND	0.5	1.0	NA		µg/L	7/30/2013 5:14 PM
Surr: 1,2-Dichloroethane-d4	98.3	NA	73.2-133	NA		%REC	7/30/2013 5:14 PM
Surr: Toluene-d8	100	NA	71-132	NA		%REC	7/30/2013 5:14 PM
Surr: 4-Bromofluorobenzene	99.9	NA	74.2-129	NA		%REC	7/30/2013 5:14 PM

REI Consultants, Inc. - Analytical Report

WO#: 1307S63

Date Reported: 8/8/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	7/29/2013 1:15:00 PM
Project:	001 GRABS AND COMP	**Date Received:**	7/29/2013
Lab ID:	1307S63-04A	**Matrix:**	Waste Water
Client Sample ID:	001 GRAB 4	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
VOLATILE ORGANIC COMPOUNDS-624		**Method: E624**					**Analyst: RB**
2-Chloroethyl vinyl ether	ND	2.5	5.0	NA		µg/L	7/30/2013 5:14 PM
Acrylonitrile	ND	5.0	10	NA		µg/L	7/30/2013 5:14 PM
4-Methyl-2-pentanone	ND	5.0	10	NA		µg/L	7/30/2013 5:14 PM
Surr: 1,2-Dichloroethane-d4	98.3	NA	73.2-133	NA		%REC	7/30/2013 5:14 PM
Surr: Toluene-d8	100	NA	71-132	NA		%REC	7/30/2013 5:14 PM
Surr: 4-Bromofluorobenzene	99.9	NA	74.2-129	NA		%REC	7/30/2013 5:14 PM
OIL and GREASE		**Method: EPA1664A**					**Analyst: JJ**
Oil & Grease	ND	2.0	5.0	NA		mg/L	7/30/2013 8:30 AM
PHENOLICS		**Method: E420.1**					**Analyst: BA**
Phenolics	ND	0.005	0.010	NA		mg/L	7/31/2013 11:00 AM
Cyanide		**Method: E335.4**					**Analyst: AL**
Cyanide, Total	ND	0.005	0.020	NA		mg/L	7/31/2013 11:39 AM

REI Consultants, Inc. - Analytical Report

WO#: 1307S63

Date Reported: 8/8/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	7/30/2013 12:30:00 PM
Project:	001 GRABS AND COMP	**Date Received:**	7/29/2013
Lab ID:	1307S63-05A	**Matrix:**	Waste Water
Client Sample ID:	001 COMP	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	MV			NA			
PESTICIDES/PCBS		**Method: E608**			**SW3510B**		**Analyst: NC**
Aroclor 1016	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Aroclor 1221	ND	0.000200	0.000499	NA		mg/L	8/8/2013 6:34 AM
Aroclor 1232	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Aroclor 1242	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Aroclor 1248	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Aroclor 1254	ND	0.000137	0.000499	NA		mg/L	8/8/2013 6:34 AM
Aroclor 1260	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Aldrin	ND	0.000120	0.000499	NA		mg/L	8/8/2013 6:34 AM
alpha-BHC	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
beta-BHC	ND	0.000090	0.000499	NA		mg/L	8/8/2013 6:34 AM
delta-BHC	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
gamma-BHC	ND	0.000110	0.000499	NA		mg/L	8/8/2013 6:34 AM
Chlordane	ND	0.000479	0.00499	NA		mg/L	8/8/2013 6:34 AM
4,4'-DDD	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
4,4'-DDE	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
4,4'-DDT	ND	0.000110	0.000499	NA		mg/L	8/8/2013 6:34 AM
Dieldrin	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Endosulfan I	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Endosulfan II	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Endosulfan sulfate	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Endrin	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Endrin aldehyde	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Heptachlor	ND	0.000100	0.000499	NA		mg/L	8/8/2013 6:34 AM
Heptachlor epoxide	ND	0.000080	0.000499	NA		mg/L	8/8/2013 6:34 AM
Toxaphene	ND	0.000569	0.00499	NA		mg/L	8/8/2013 6:34 AM
Surr: decachlorobiphenyl	41.5	NA	5.3-110	NA		%REC	8/8/2013 6:34 AM
Surr: tetrachloro-m-xylene	87.5	NA	19.49-150	NA		%REC	8/8/2013 6:34 AM

Notes:

The associated batch matrix spike exceeds REIC control limits.

SEMIVOLATILE ORGANIC COMPOUNDS		**Method: E625**			**SW3510**		**Analyst: JD**
Acenaphthene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Acenaphthylene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Anthracene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Benzidine	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Benzo(a)anthracene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Benzo(a)pyrene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM

REI Consultants, Inc. - Analytical Report

WO#: 1307S63

Date Reported: 8/8/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	7/30/2013 12:30:00 PM
Project:	001 GRABS AND COMP	**Date Received:**	7/29/2013
Lab ID:	1307S63-05A	**Matrix:**	Waste Water
Client Sample ID:	001 COMP	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
Benzo(b)fluoranthene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Benzo(g,h,i)perylene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Benzo(k)fluoranthene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Bis(2-chloroethoxy)methane	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Bis(2-chloroethyl)ether	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Bis(2-chloroisopropyl)ether	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Bis(2-ethylhexyl)phthalate	ND	0.0070	0.0116	NA		mg/L	8/6/2013 8:34 PM
4-Bromophenyl phenyl ether	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Butyl benzyl phthalate	ND	0.0058	0.0116	NA		mg/L	8/6/2013 8:34 PM
4-Chloro-3-methylphenol	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
2-Chloronaphthalene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
2-Chlorophenol	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
4-Chlorophenyl phenyl ether	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Chrysene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Dibenzo(a,h)anthracene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Di-n-butyl phthalate	ND	0.0035	0.0116	NA		mg/L	8/6/2013 8:34 PM
3,3'-Dichlorobenzidine	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
2,4-Dichlorophenol	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Diethyl phthalate	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Dimethyl phthalate	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
2,4-Dimethylphenol	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
4,6-Dinitro-2-methylphenol	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
2,4-Dinitrophenol	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
2,4-Dinitrotoluene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
2,6-Dinitrotoluene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Di-n-octyl phthalate	ND	0.0058	0.0116	NA		mg/L	8/6/2013 8:34 PM
1,2-Diphenylhydrazine	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Fluoranthene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Fluorene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Hexachlorobenzene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Hexachlorobutadiene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Hexachlorocyclopentadiene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Hexachloroethane	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Indeno(1,2,3-cd)pyrene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Isophorone	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Naphthalene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Nitrobenzene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
2-Nitrophenol	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
4-Nitrophenol	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
N-Nitrosodimethylamine	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
N-Nitrosodiphenylamine	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM

REI Consultants, Inc. - Analytical Report

WO#: 1307S63

Date Reported: 8/8/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	7/30/2013 12:30:00 PM
Project:	001 GRABS AND COMP	**Date Received:**	7/29/2013
Lab ID:	1307S63-05A	**Matrix:**	Waste Water
Client Sample ID:	001 COMP	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
N-Nitrosodi-n-propylamine	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Pentachlorophenol	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Phenanthrene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Phenol	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Pyrene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
1,2,4-Trichlorobenzene	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
2,4,6-Trichlorophenol	ND	0.0023	0.0116	NA		mg/L	8/6/2013 8:34 PM
Surr: 2-Fluorophenol	56.2	NA	25.9-110	NA		%REC	8/6/2013 8:34 PM
Surr: Phenol-d5	41.5	NA	8.2-110	NA		%REC	8/6/2013 8:34 PM
Surr: 2,4,6-Tribromophenol	87.4	NA	61.7-110	NA		%REC	8/6/2013 8:34 PM
Surr: Nitrobenzene-d5	89.4	NA	62.2-110	NA		%REC	8/6/2013 8:34 PM
Surr: 2-Fluorobiphenyl	82.6	NA	54.6-110	NA		%REC	8/6/2013 8:34 PM
Surr: 4-Terphenyl-d14	73.8	NA	10.7-110	NA		%REC	8/6/2013 8:34 PM
ANIONS by ION CHROMATOGRAPHY		**Method: E300.0**					**Analyst: CF**
Nitrogen, Nitrate	9.00	0.20	1.00	NA		mg/L	7/31/2013 12:58 PM
Nitrogen, Nitrite	ND	0.05	0.50	NA		mg/L	7/31/2013 12:58 PM
AMMONIA NITROGEN		**Method: EPA350.1**					**Analyst: AL**
Nitrogen, Ammonia (As N)	ND	0.04	0.10	NA		mg/L	7/31/2013 2:32 PM
TOTAL DISSOLVED SOLIDS		**Method: SM2540 C**					**Analyst: SF**
Total Dissolved Solids	346	5	10	500		mg/L	8/1/2013 2:14 PM

405850

CHAIN OF CUSTODY RECORD

REIC
Research Environmental & Industrial Consultants, Inc.
MAIN LABORATORY & CORPORATE HEADQUARTERS:
P.O. Box 286 • 225 Industrial Park Rd, Beaver, WV 25813
800-999-0105 • 304-255-2500 • www.reiclabs.com

MID-OHIO VALLEY Service Center	SHENANDOAH Service Center	ROANOKE Service Center	MORGANTOWN Service Center
101 17th Street	1557 Commerce Rd., Ste 201	3029-C Peters Creek Rd	16 Commerce Drive
Ashland, KY 41101	Verona, VA 24482	Roanoke, VA 24019	Westover, WV 26501
606-393-5027	540-248-0183	540-777-1276	304-241-5861

Client: WVWA PO #:
Contact Person: Jessie Richardson Phone: (540) 853-1517
QUOTE #: Fax: Email:
Address: City: State: Zip:
Billing Address (if different):
City: State: Zip:
Site ID & State: Project ID: Sampler: Matt Vess

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: [✓] NORMAL — RUSH TURNAROUND: [ ] 5 DAY [ ] 3 DAY [ ] 2 DAY [ ] 1 DAY
*Rush work needs prior laboratory approval and will incur additional charges

ANALYSIS & METHOD REQUESTED: pH (Field); TTO (624); 1664 O&G; Cyanide; Total Phenolics

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab									
001 Grab 1		7-29-13 / 1220	WW	Grab	X	X	X	X	X				
001 Grab 2		7-29-13 / 1245	↓	↓	X	X	X	X	X				
001 Grab 3		7-29-13 / 1300			X	X	X	X	X				
001 Grab 4		7-29-13 / 1315			X	X	X	X	X				

ENTER PRESERVATIVE CODE:
0 None; 1 Hydrochloric Acid; 2 Nitric Acid; 3 Sulfuric Acid; 4 Sodium Thiosulfate; 5 Sodium Hydroxide; 6 Zinc Acetate; 7 EDTA; 8 Ascorbic Acid

COMMENTS:

All analytical requests are subject to REIC's Standard Terms and Conditions.

Temperature at arrival: 1.0 °C ICED? Y ✓ N

Containers provided by: [✓] REIC [ ] Client

1 Relinquished by (signature)	Date/Time: 7-29-13 / 1430	2 Relinquished by (signature)	Date/Time	FAX RESULTS [ ]	EMAIL RESULTS [ ]
Received by (signature)	Date/Time: 7-29-13 / 1500	Received by (signature)	Date/Time	SHIPMENT: ___ Hand Delivered ___ Courier ___ UPS ___ FEDEX ___ USPS ___ OTHER	

COC-NCR-050213

413853

CHAIN OF CUSTODY RECORD

REIC
Research Environmental & Industrial Consultants, Inc.
MAIN LABORATORY & CORPORATE HEADQUARTERS:
P.O. Box 286 • 225 Industrial Park Rd, Beaver, WV 25813
800-999-0105 • 304-255-2500 • www.reiclabs.com

MID-OHIO VALLEY Service Center
101 17th Street
Ashland, KY 41101
606-393-5027

SHENANDOAH Service Center
1557 Commerce Rd., Ste 201
Verona, VA 24482
540-248-0183

ROANOKE Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

MORGANTOWN Service Center
16 Commerce Drive
Westover, WV 26501
304-241-5861

Client: WVWA PO #
Contact Person Jenis Richardson Phone (540) 853-1517
QUOTE # Fax: Email:
Address City State Zip
Billing Address (if different)
City State Zip
Site ID & State Project ID Sampler Matt Vess

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: [✓] NORMAL
RUSH TURNAROUND: [ ] 5 DAY [ ] 3 DAY [ ] 2 DAY [ ] 1 DAY
*Rush work needs prior laboratory approval and will incur additional charges

ANALYSIS & METHOD REQUESTED: TTO; NH_3 NO_2 NO_3; TDS

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	0	3	0						
001 Comp		7-30-13/1250	WW	Comp	✓	✓	✓						

ENTER PRESERVATIVE CODE:
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA
8 Ascorbic Acid

COMMENTS:
Day 2 of 2
WO# 1307563

All analytical requests are subject to REIC's Standard Terms and Conditions.

Temperature at arrival: 1.0°C ICED? Y ✓ N

Containers provided by: [✓] REIC [ ] Client

1 Relinquished by (signature)	7-30-13/1540 Date/Time	2 Relinquished by (signature)	Date/Time	FAX RESULTS [ ]	EMAIL RESULTS [ ]
Received by (signature) Kristen Brayfield	7-30-13/1540 Date/Time	Received by (signature)	Date/Time	SHIPMENT ___ Hand Delivered ___ Courier ___ UPS ___ FEDEX ___ USPS ___ OTHER	

COC-NCR-050213

REI Consultants, Inc. - QC SUMMARY REPORT

W 1307S63

Date Reported: 8/8/2013

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP

Test Code: 1664_HEM

Sample ID:	LCS-R308567	Samp Type:	LCS	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	308567	
Client ID:	LCSW	Batch ID:	R308567	TestNo:	EPA1664A			Analysis Date:	7/30/2013	SeqNo:	4609682	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		36.0	5.0	40.0	0	90.0	77.9	114.1				

Sample ID:	R308567LCSD	Samp Type:	LCSD	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	308567	
Client ID:	LCSS02	Batch ID:	R308567	TestNo:	EPA1664A			Analysis Date:	7/30/2013	SeqNo:	4609683	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		35.4	5.0	40.0	0	88.5	77.9	114.1	36.0	1.7	20	

Sample ID:	MB-R308567	Samp Type:	MBLK	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	308567	
Client ID:	PBW	Batch ID:	R308567	TestNo:	EPA1664A			Analysis Date:	7/30/2013	SeqNo:	4609684	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		ND	5.0									

REI Consultants, Inc. - QC SUMMARY REPORT

Work Order: 1307S63

Date Reported: 8/8/2013

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** 608_L

Sample ID:	mb-45242	Samp Type:	mblk	Test Code:	608_L	Units:	mg/L	Prep Date:	8/6/2013	RunNo:	309141
Client ID:	PBW	Batch ID:	45242	TestNo:	E608	SW3510B		Analysis Date:	8/8/2013	SeqNo:	4621130

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.000500									
Aroclor 1221	ND	0.000500									
Aroclor 1232	ND	0.000500									
Aroclor 1242	ND	0.000500									
Aroclor 1248	ND	0.000500									
Aroclor 1254	ND	0.000500									
Aroclor 1260	ND	0.000500									
Aldrin	ND	0.000500									
alpha-BHC	ND	0.000500									
beta-BHC	ND	0.000500									
delta-BHC	ND	0.000500									
gamma-BHC	ND	0.000500									
Chlordane	ND	0.00500									
4,4'-DDD	ND	0.000500									
4,4'-DDE	ND	0.000500									
4,4'-DDT	ND	0.000500									
Dieldrin	ND	0.000500									
Endosulfan I	ND	0.000500									
Endosulfan II	ND	0.000500									
Endosulfan sulfate	ND	0.000500									
Endrin	ND	0.000500									
Endrin aldehyde	ND	0.000500									
Heptachlor	ND	0.000500									
Heptachlor epoxide	ND	0.000500									
Toxaphene	ND	0.00500									
Surr: tetrachloro-m-xylene	0.00155		0.002000		77.5	19.49	150				

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** 608_L

Sample ID:	LCS-PCB-45242	Samp Type:	lcs	Test Code:	608_L	Units:	mg/L	Prep Date:	8/6/2013	RunNo:	309141
Client ID:	LCSW	Batch ID:	45242	TestNo:	E608	SW3510B		Analysis Date:	8/8/2013	SeqNo:	4621131

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Aroclor 1016	0.00352	0.000500	0.005000	0	70.4	50	114				
Aroclor 1260	0.00367	0.000500	0.005000	0	73.4	8	127				
Surr: tetrachloro-m-xylene	0.00165		0.002000		82.5	22.1	149				

Sample ID:	LCS-PEST-45242	Samp Type:	lcs	Test Code:	608_L	Units:	mg/L	Prep Date:	8/6/2013	RunNo:	309141
Client ID:	LCSW	Batch ID:	45242	TestNo:	E608	SW3510B		Analysis Date:	8/8/2013	SeqNo:	4621132

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Aldrin	0.00206	0.000500	0.002500	0	82.4	42	122				
alpha-BHC	0.00210	0.000500	0.002500	0	84.0	37	134				
beta-BHC	0.00211	0.000500	0.002500	0	84.4	17	147				
delta-BHC	0.00206	0.000500	0.002500	0	82.4	19	140				
gamma-BHC	0.00210	0.000500	0.002500	0	84.0	32	127				
4,4'-DDD	0.00211	0.000500	0.002500	0	84.4	31	141				
4,4'-DDE	0.00207	0.000500	0.002500	0	82.8	30	145				
4,4'-DDT	0.00203	0.000500	0.002500	0	81.2	25	160				
Dieldrin	0.00213	0.000500	0.002500	0	85.2	36	146				
Endosulfan I	0.00213	0.000500	0.002500	0	85.2	45	153				
Endosulfan II	0.00214	0.000500	0.002500	0	85.6	0	202				
Endosulfan sulfate	0.00213	0.000500	0.002500	0	85.2	26	144				
Endrin	0.00218	0.000500	0.002500	0	87.2	30	147				
Endrin aldehyde	0.00234	0.000500	0.002500	0	93.6	30	147				
Heptachlor	0.00211	0.000500	0.002500	0	84.4	27	116				
Heptachlor epoxide	0.00215	0.000500	0.002500	0	86.0	37	142				
Surr: tetrachloro-m-xylene	0.00172		0.002000		86.0	22.1	149				

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** 624_ACROLEIN

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_ACROLEIN	Units:	µg/L	Prep Date:		RunNo:	308665	
Client ID:	LCSW	Batch ID:	R308665	TestNo:	E624			Analysis Date:	7/30/2013	SeqNo:	4611663	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acrolein		110	10	100.0	0	115	70	130				

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_ACROLEIN	Units:	µg/L	Prep Date:		RunNo:	308665	
Client ID:	PBW	Batch ID:	R308665	TestNo:	E624			Analysis Date:	7/30/2013	SeqNo:	4611664	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acrolein		ND	10									

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	308665	
Client ID:	LCSW	Batch ID:	R308665	TestNo:	E624			Analysis Date:	7/30/2013	SeqNo:	4611615	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	10.6	1.0	10	0	106	77	150				
Bromodichloromethane	10.7	1.0	10	0	107	17	157				
Bromoform	7.5	1.0	10	0	74.8	22	157				
Bromomethane	8.0	1.0	10	0	79.5	0	242				
Carbon tetrachloride	10	1.0	10	0	99.5	59	127				
Chlorobenzene	11.2	1.0	10	0	112	91	151				
Chloroethane	8.6	1.0	10	0	86.5	0	258				
Chloroform	10.2	1.0	10	0	102	50	153				
Chloromethane	7.4	1.0	10	0	74.4	0	279				
Dibromochloromethane	9.6	1.0	10	0	96.5	47	154				
1,2-Dichlorobenzene	11.2	1.0	10	0	112	67	211				
1,3-Dichlorobenzene	11.0	1.0	10	0	110	89	157				
1,4-Dichlorobenzene	10.1	1.0	10	0	101	67	211				
1,1-Dichloroethane	14.6	1.0	10	0	146	55	163				
1,2-Dichloroethane	10.9	1.0	10	0	109	61	152				
1,1-Dichloroethene	11.4	1.0	10	0	114	0	237				
trans-1,2-Dichloroethene	11.2	1.0	10	0	112	52	158				
1,2-Dichloropropane	9.9	1.0	10	0	98.6	0	210				
cis-1,3-Dichloropropene	7.1	1.0	10	0	70.7	0	227				
trans-1,3-Dichloropropene	7.4	1.0	10	0	74.4	17	183				
Ethylbenzene	10.6	1.0	10	0	106	87	159				
Methylene chloride	9.7	1.0	10	0	97.4	0	286				
1,1,2,2-Tetrachloroethane	9.3	1.0	10	0	93.0	47	175				
Tetrachloroethene	9.5	1.0	10	0	95.4	79	145				
Toluene	10.4	1.0	10	0	104	79	145				
1,1,1-Trichloroethane	10.5	1.0	10	0	105	65	162				
1,1,2-Trichloroethane	9.7	1.0	10	0	97.0	63	161				
Trichloroethene	10	1.0	10	0	99.9	75	178				
Trichlorofluoromethane	9.7	1.0	10	0	96.8	27	179				
Vinyl chloride	7.7	1.0	10	0	76.7	0	259				

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	308665
Client ID:	LCSW	Batch ID:	R308665	TestNo:	E624			Analysis Date:	7/30/2013	SeqNo:	4611615

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.9		10		99.2	65.5	133				
Surr: 1,2-Dichloroethane-d4	10.7		10		107	74	140				
Surr: Toluene-d8	9.9		10		98.7	71.1	126				
Surr: 4-Bromofluorobenzene	10.1		10		101	75.9	129				

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	308665
Client ID:	PBW	Batch ID:	R308665	TestNo:	E624			Analysis Date:	7/30/2013	SeqNo:	4611616

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
Dibromochloromethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
1,2-Dichloropropane	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
Ethylbenzene	ND	1.0									
Methylene chloride	ND	1.0									

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** 624_L

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	308665	
Client ID:	PBW	Batch ID:	R308665	TestNo:	E624			Analysis Date:	7/30/2013	SeqNo:	4611616	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	1.0									
Tetrachloroethene	ND	1.0									
Toluene	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	1.0									
Surr: Dibromofluoromethane	9.5		10		95.1	70.8	128				
Surr: 1,2-Dichloroethane-d4	10.1		10		101	73.2	133				
Surr: Toluene-d8	10		10		100	71	132				
Surr: 4-Bromofluorobenzene	9.8		10		98.0	74.2	129				

REI Consultants, Inc. - QC SUMMARY REPORT

Work Order: 1307S63

Date Reported: 8/8/2013

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP

Test Code: 624_SUP_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_SUP_L	Units:	µg/L	Prep Date:		RunNo:	308665	
Client ID:	LCSW	Batch ID:	R308665	TestNo:	E624			Analysis Date:	7/30/2013	SeqNo:	4611650	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	57.4	5.0	50.0	0	115	70	130				
Acrylonitrile	140	10	100	0	140	70	130				S
4-Methyl-2-pentanone	117	10	100	0	117	70	130				
Surr: 1,2-Dichloroethane-d4	10.7		10		107	76	114				
Surr: Toluene-d8	9.9		10		98.7	88	110				
Surr: 4-Bromofluorobenzene	10.1		10		101	86	115				

Sample ID:	BLANK	Samp Type:	MBLK	Test Code:	624_SUP_L	Units:	µg/L	Prep Date:		RunNo:	308665	
Client ID:	PBW	Batch ID:	R308665	TestNo:	E624			Analysis Date:	7/30/2013	SeqNo:	4611652	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	ND	5.0									
Acrylonitrile	ND	10									
4-Methyl-2-pentanone	ND	10									
Surr: 1,2-Dichloroethane-d4	10.1		10		101	73.2	133				
Surr: Toluene-d8	10		10		100	71	132				
Surr: 4-Bromofluorobenzene	9.8		10		98.0	74.2	129				

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** 625_SUP_L

Sample ID:	MB-45208	Samp Type:	MBLK	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	8/5/2013	RunNo:	309094
Client ID:	PBW	Batch ID:	45208	TestNo:	E625	SW3510		Analysis Date:	8/6/2013	SeqNo:	4620148

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.0100									
Acenaphthylene	ND	0.0100									
Anthracene	ND	0.0100									
Benzidine	ND	0.0100									
Benzo(a)anthracene	ND	0.0100									
Benzo(a)pyrene	ND	0.0100									
Benzo(b)fluoranthene	ND	0.0100									
Benzo(g,h,i)perylene	ND	0.0100									
Benzo(k)fluoranthene	ND	0.0100									
Bis(2-chloroethoxy)methane	ND	0.0100									
Bis(2-chloroethyl)ether	ND	0.0100									
Bis(2-chloroisopropyl)ether	ND	0.0100									
Bis(2-ethylhexyl)phthalate	ND	0.0100									
4-Bromophenyl phenyl ether	ND	0.0100									
Butyl benzyl phthalate	ND	0.0100									
4-Chloro-3-methylphenol	ND	0.0100									
2-Chloronaphthalene	ND	0.0100									
2-Chlorophenol	ND	0.0100									
4-Chlorophenyl phenyl ether	ND	0.0100									
Chrysene	ND	0.0100									
Dibenzo(a,h)anthracene	ND	0.0100									
Di-n-butyl phthalate	ND	0.0100									
3,3'-Dichlorobenzidine	ND	0.0100									
2,4-Dichlorophenol	ND	0.0100									
Diethyl phthalate	ND	0.0100									
Dimethyl phthalate	ND	0.0100									
2,4-Dimethylphenol	ND	0.0100									
4,6-Dinitro-2-methylphenol	ND	0.0100									
2,4-Dinitrophenol	ND	0.0100									
2,4-Dinitrotoluene	ND	0.0100									

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** 625_SUP_L

Sample ID:	MB-45208	Samp Type:	MBLK	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	8/5/2013	RunNo:	309094
Client ID:	PBW	Batch ID:	45208	TestNo:	E625	SW3510		Analysis Date:	8/6/2013	SeqNo:	4620148

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	ND	0.0100									
Di-n-octyl phthalate	ND	0.0100									
1,2-Diphenylhydrazine	ND	0.0100									
Fluoranthene	ND	0.0100									
Fluorene	ND	0.0100									
Hexachlorobenzene	ND	0.0100									
Hexachlorobutadiene	ND	0.0100									
Hexachlorocyclopentadiene	ND	0.0100									
Hexachloroethane	ND	0.0100									
Indeno(1,2,3-cd)pyrene	ND	0.0100									
Isophorone	ND	0.0100									
Naphthalene	ND	0.0100									
Nitrobenzene	ND	0.0100									
2-Nitrophenol	ND	0.0100									
4-Nitrophenol	ND	0.0100									
N-Nitrosodimethylamine	ND	0.0100									
N-Nitrosodiphenylamine	ND	0.0100									
N-Nitrosodi-n-propylamine	ND	0.0100									
Pentachlorophenol	ND	0.0100									
Phenanthrene	ND	0.0100									
Phenol	ND	0.0100									
Pyrene	ND	0.0100									
1,2,4-Trichlorobenzene	ND	0.0100									
Surr: 2-Fluorophenol	0.0253		0.0500		50.5	32.9	110				
Surr: Phenol-d5	0.0182		0.0500		36.4	25.8	110				
Surr: 2,4,6-Tribromophenol	0.0403		0.0500		80.7	63.8	110				
Surr: Nitrobenzene-d5	0.0411		0.0500		82.1	61.8	110				
Surr: 2-Fluorobiphenyl	0.0375		0.0500		75.0	58.6	110				
Surr: 4-Terphenyl-d14	0.0406		0.0500		81.2	55.1	110				

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** 625_SUP_L

Sample ID:	LCS-45208	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	8/5/2013	RunNo:	309094
Client ID:	LCSW	Batch ID:	45208	TestNo:	E625	SW3510		Analysis Date:	8/6/2013	SeqNo:	4620149

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acenaphthene	0.0359	0.0100	0.0500	0	71.8	50	143				
Acenaphthylene	0.0364	0.0100	0.0500	0	72.8	36	145				
Anthracene	0.0341	0.0100	0.0500	0	68.1	31	132				
Benzo(a)anthracene	0.0342	0.0100	0.0500	0	68.3	33	141				
Benzo(a)pyrene	0.0305	0.0100	0.0500	0	61.0	13	166				
Benzo(b)fluoranthene	0.0348	0.0100	0.0500	0	69.6	22	157				
Benzo(g,h,i)perylene	0.0328	0.0100	0.0500	0	65.7	0	214				
Benzo(k)fluoranthene	0.0295	0.0100	0.0500	0	59.0	10	158				
Bis(2-chloroethoxy)methane	0.0346	0.0100	0.0500	0	69.1	28	176				
Bis(2-chloroethyl)ether	0.0367	0.0100	0.0500	0	73.3	12	154				
Bis(2-chloroisopropyl)ether	0.0369	0.0100	0.0500	0	73.8	33	164				
Bis(2-ethylhexyl)phthalate	0.0364	0.0100	0.0500	0	72.8	7	157				
4-Bromophenyl phenyl ether	0.0333	0.0100	0.0500	0	66.6	51	126				
Butyl benzyl phthalate	0.0357	0.0100	0.0500	0	71.5	0	148				
4-Chloro-3-methylphenol	0.0363	0.0100	0.0500	0	72.6	18	151				
2-Chloronaphthalene	0.0334	0.0100	0.0500	0	66.9	59	119				
2-Chlorophenol	0.0372	0.0100	0.0500	0	74.5	20	137				
4-Chlorophenyl phenyl ether	0.0349	0.0100	0.0500	0	69.7	27	157				
Chrysene	0.0348	0.0100	0.0500	0	69.5	18	164				
Dibenzo(a,h)anthracene	0.0332	0.0100	0.0500	0	66.3	0	239				
Di-n-butyl phthalate	0.0353	0.0100	0.0500	0	70.7	0	121				
3,3'-Dichlorobenzidine	0.0248	0.0100	0.0500	0	49.6	0	227				
2,4-Dichlorophenol	0.0379	0.0100	0.0500	0	75.7	36	138				
Diethyl phthalate	0.0386	0.0100	0.0500	0	77.2	0	103				
2,4-Dimethylphenol	0.0340	0.0100	0.0500	0	68.0	31	129				
4,6-Dinitro-2-methylphenol	0.0383	0.0100	0.0500	0	76.6	0	191				
2,4-Dinitrophenol	0.0385	0.0100	0.0500	0	76.9	0	219				
2,4-Dinitrotoluene	0.0398	0.0100	0.0500	0	79.6	33	132				
2,6-Dinitrotoluene	0.0387	0.0100	0.0500	0	77.5	51	146				
Di-n-octyl phthalate	0.0363	0.0100	0.0500	0	72.6	1	147				

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** 625_SUP_L

Sample ID:	LCS-45208	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	8/5/2013	RunNo:	309094
Client ID:	LCSW	Batch ID:	45208	TestNo:	E625	SW3510		Analysis Date:	8/6/2013	SeqNo:	4620149

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Fluoranthene	0.0345	0.0100	0.0500	0	69.0	29	137				
Fluorene	0.0361	0.0100	0.0500	0	72.2	59	122				
Hexachlorobenzene	0.0336	0.0100	0.0500	0	67.2	0	152				
Hexachlorobutadiene	0.0275	0.0100	0.0500	0	55.0	23	115				
Hexachloroethane	0.0284	0.0100	0.0500	0	56.9	38	105				
Indeno(1,2,3-cd)pyrene	0.0319	0.0100	0.0500	0	63.7	0	162				
Isophorone	0.0367	0.0100	0.0500	0	73.4	21	209				
Naphthalene	0.0288	0.0100	0.0500	0	57.6	25	134				
Nitrobenzene	0.0353	0.0100	0.0500	0	70.5	34	172				
2-Nitrophenol	0.0387	0.0100	0.0500	0	77.3	23	186				
4-Nitrophenol	0.0184	0.0100	0.0500	0	36.7	0	137				
N-Nitrosodi-n-propylamine	0.0372	0.0100	0.0500	0	74.4	0	209				
Pentachlorophenol	0.0354	0.0100	0.0500	0	70.9	5	189				
Phenanthrene	0.0336	0.0100	0.0500	0	67.1	5	120				
Phenol	0.0174	0.0100	0.0500	0	34.8	4	87				
Pyrene	0.0352	0.0100	0.0500	0	70.3	52	116				
1,2,4-Trichlorobenzene	0.0310	0.0100	0.0500	0	61.9	43	142				
Surr: 2-Fluorophenol	0.0257		0.0500		51.4	32.9	110				
Surr: Phenol-d5	0.0195		0.0500		39.0	25.8	110				
Surr: 2,4,6-Tribromophenol	0.0407		0.0500		81.4	63.8	110				
Surr: Nitrobenzene-d5	0.0419		0.0500		83.7	61.8	110				
Surr: 2-Fluorobiphenyl	0.0383		0.0500		76.6	58.6	110				
Surr: 4-Terphenyl-d14	0.0393		0.0500		78.5	55.1	110				

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** CN_335.4

Sample ID:	MB-45109	Samp Type:	MBLK	Test Code:	CN_335.4	Units:	mg/L	Prep Date:	7/31/2013	RunNo:	308653	
Client ID:	PBW	Batch ID:	45109	TestNo:	E335.4			Analysis Date:	7/31/2013	SeqNo:	4611327	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyanide, Total		ND	0.020									

Sample ID:	LCS-45109	Samp Type:	LCS	Test Code:	CN_335.4	Units:	mg/L	Prep Date:	7/31/2013	RunNo:	308653	
Client ID:	LCSW	Batch ID:	45109	TestNo:	E335.4			Analysis Date:	7/31/2013	SeqNo:	4611328	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyanide, Total		0.092	0.020	0.100	0	92.1	89.9	110.1				

Sample ID:	LCSD-45109	Samp Type:	LCS	Test Code:	CN_335.4	Units:	mg/L	Prep Date:	7/31/2013	RunNo:	308653	
Client ID:	LCSW	Batch ID:	45109	TestNo:	E335.4			Analysis Date:	7/31/2013	SeqNo:	4611329	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyanide, Total		0.099	0.020	0.100	0	98.8	89.9	110.1				

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP **Test Code:** NH3_N_350.1

Sample ID:	LCS	Samp Type:	LCS	Test Code:	NH3_N_350.1	Units:	mg/L	Prep Date:		RunNo:	308705	
Client ID:	LCSW	Batch ID:	R308705	TestNo:	EPA350.1			Analysis Date:	7/31/2013	SeqNo:	4612217	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Nitrogen, Ammonia (As N)	0.97	0.10	1.00	0	97.3	89.9	110.1					

Sample ID:	LCS	Samp Type:	LCS	Test Code:	NH3_N_350.1	Units:	mg/L	Prep Date:		RunNo:	308705	
Client ID:	LCSW	Batch ID:	R308705	TestNo:	EPA350.1			Analysis Date:	7/31/2013	SeqNo:	4612253	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Nitrogen, Ammonia (As N)	1.01	0.10	1.00	0	101	89.9	110.1					

Sample ID:	LCS	Samp Type:	LCS	Test Code:	NH3_N_350.1	Units:	mg/L	Prep Date:		RunNo:	308705	
Client ID:	LCSW	Batch ID:	R308705	TestNo:	EPA350.1			Analysis Date:	7/31/2013	SeqNo:	4612260	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Nitrogen, Ammonia (As N)	1.00	0.10	1.00	0	99.5	89.9	110.1					

Sample ID:	LCS	Samp Type:	LCS	Test Code:	NH3_N_350.1	Units:	mg/L	Prep Date:		RunNo:	308705	
Client ID:	LCSW	Batch ID:	R308705	TestNo:	EPA350.1			Analysis Date:	7/31/2013	SeqNo:	4612264	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Nitrogen, Ammonia (As N)	1.00	0.10	1.00	0	100	89.9	110.1					

REI Consultants, Inc. - QC SUMMARY REPORT

Work Order: 1307S63

Date Reported: 8/8/2013

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP

Test Code: PHENOLICS_L

Sample ID:	MB-R308655	Samp Type:	MBLK	Test Code:	PHENOLICS_L	Units:	mg/L	Prep Date:		RunNo:	308655	
Client ID:	PBW	Batch ID:	R308655	TestNo:	E420.1			Analysis Date:	7/31/2013	SeqNo:	4611379	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Phenolics		ND	0.010									

Sample ID:	LCS-R308655	Samp Type:	LCS	Test Code:	PHENOLICS_L	Units:	mg/L	Prep Date:		RunNo:	308655	
Client ID:	LCSW	Batch ID:	R308655	TestNo:	E420.1			Analysis Date:	7/31/2013	SeqNo:	4611380	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Phenolics		0.101	0.010	0.100	0	101	89.9	110.1				

REI Consultants, Inc. - QC SUMMARY REPORT

Work Order: 1307S63

Date Reported: 8/8/2013

Client: WESTERN VA WATER WWTP

Project: 001 GRABS AND COMP

Test Code: SOLIDS_TDS

Sample ID:	MB-R308788	Samp Type:	MBLK	Test Code:	SOLIDS_TDS	Units:	mg/L	Prep Date:		RunNo:	308788	
Client ID:	PBW	Batch ID:	R308788	TestNo:	SM2540 C			Analysis Date:	8/1/2013	SeqNo:	4613847	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Total Dissolved Solids		ND	10									

Sample ID:	LCS-R308788	Samp Type:	LCS	Test Code:	SOLIDS_TDS	Units:	mg/L	Prep Date:		RunNo:	308788	
Client ID:	LCSW	Batch ID:	R308788	TestNo:	SM2540 C			Analysis Date:	8/1/2013	SeqNo:	4613848	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Total Dissolved Solids		250	10	250	0	100	89.9	110.1				

ENTERED

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: 304.255.2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

3029-C Peters Creek Road
Roanoke, VA 24019
TEL: 540.777.1276

101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.248.0183

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Wednesday, September 25, 2013

Ms. Janis Richardson
WESTERN VA WATER WWTP
1502 BROWNLEE AV SE
ROANOKE, VA 24014

TEL: (540) 853-1517
FAX: (540) 853-1307

RE: SW009-WPCP
Work Order #: 1309N42

Dear Ms. Janis Richardson:

REI Consultants, Inc. received 1 sample(s) on 9/20/2013 for the analyses presented in the following report.

Sincerely,

Joy Castle
Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1309N42

Date Reported: 9/25/2013

Client: WESTERN VA WATER WWTP

Project: SW009-WPCP

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

Please note if the sample collection time is not provided on the Chain of Custody, the default recording will be 0:00:00. This may cause some tests to be apparently analyzed out of hold.

All tests performed by REIC Service Centers are designated by an annotation on the test code. All other tests were performed by REIC's Main Laboratory in Beaver, WV.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
*: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460149, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094, WV 389
Morgantown, WV: WVDHHR 003112M, WVDEP 387

REI Consultants, Inc. - Analytical Report

WO#: 1309N42

Date Reported: 9/25/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	9/20/2013 9:20:00 AM
Project:	SW009-WPCP	**Date Received:**	9/20/2013
Lab ID:	1309N42-01A	**Matrix:**	Surface Water
Client Sample ID:	SW009	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
OIL and GREASE		**Method: EPA1664A**					**Analyst: JJ**
Oil & Grease	ND	2.0	5.0	NA		mg/L	9/24/2013 9:10 AM

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1309N42

Date Reported: 9/25/2013

Client: WESTERN VA WATER WWTP

Project: SW009-WPCP **Test Code:** 1664_HEM

Sample ID:	MB-R312406	Samp Type:	MBLK	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	312406	
Client ID:	PBW	Batch ID:	R312406	TestNo:	EPA1664A			Analysis Date:	9/24/2013	SeqNo:	4687844	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		ND	5.0									

Sample ID:	LCS-R312406	Samp Type:	LCS	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	312406	
Client ID:	LCSW	Batch ID:	R312406	TestNo:	EPA1664A			Analysis Date:	9/24/2013	SeqNo:	4687845	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		35.0	5.0	40.0	0	87.5	77.9	114.1				

Sample ID:	R312406LCSD	Samp Type:	LCSD	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	312406	
Client ID:	LCSS02	Batch ID:	R312406	TestNo:	EPA1664A			Analysis Date:	9/24/2013	SeqNo:	4687846	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		36.3	5.0	40.0	0	90.8	77.9	114.1	35.0	3.6	20	

REIC

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225 Industrial Park Rd.
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Phone: 304-255-2500 or 800-999-0105
FAX: 304-255-2572
e-mail: rlabs@reiclabs.com

CHAIN OF CUSTODY RECORD NO. 239115

CLIENT: WVWA - Pretreatment
ADDRESS: 1502 Brambleton Ave SE
CITY/STATE/ZIP: Roanoke, VA 24014
BILL TO:
CITY/STATE/ZIP:
PURCHASE ORDER #
QUOTE #

CONTACT PERSON: Janis Richardson
TELEPHONE #: 853-1517
FAX #:
E-MAIL ADDRESS:
SITE ID & STATE:
PROJECT ID: SW009 - WPCP
SAMPLER: C. S. Holland

SAMPLE LOG AND ANALYSIS REQUEST

TURNAROUND TIME REQUIREMENTS
REGULAR: ✓
*RUSH: ___ 5-Day ___ 3-Day ___ 2-Day ___ 1-Day
*Rush work needs prior Laboratory approval and will include surcharges

PRESERVATIVES
0 No Preservative
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA

PRESERVATIVE CODES — NOTE PRESERVATIVES → 1

SAMPLE ID	NO. & TYPE OF CONTAINERS	SAMPLING DATE / TIME	MATRIX	SAMPLE COMP / GRAB	ANALYSIS REQUESTED & METHOD: Oil & Grease	COMMENTS
~~Oil & Grease~~						
SW0009	Amber	9.20.13 0920	SW	Grab	X	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	9.20.13 1036						
	9-20-13 19:36			Temperature Upon Arrival 3 °C		☐ FAX Results	☐ Email Results

SW0085[illegible] 5.14.13
9

REI Consultants, Inc.
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Beaver, WV 25813
TEL: 304.255.2500
Website: www.reiclabs.com

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101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.777.1276

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Thursday, May 09, 2013

JANIS RICHARDSON
WESTERN VA WATER WWTP
1540 UNDERHILL AV
ROANOKE, VA 24014

TEL: (540) 853-1517
FAX: (540) 853-1307

RE: STORM WATER COD
Work Order #: 1305792

Dear JANIS RICHARDSON:

REI Consultants, Inc. received 2 sample(s) on 5/8/2013 for the analyses presented in the following report.

Sincerely,

Joy Castle

Project Manager

WESTERN VIRGINIA WATER AUTHORITY

Roanoke Regional Water Pollution Control Plant Laboratory
1502 Brownlee Avenue, SE Roanoke, Virginia 24014
Virginia Lab ID: 450094 EPA Lab ID: VA01008

Roanoke Regional Water Pollution Control Plant
1502 Brownlee Avenue, SE
Roanoke, VA 24014

Analytical Report Date: 5/12/2013
Sample Order ID: 0506201306
Sample Received: 5/6/2013

Sample Description: Outfall 009
Collection Date Start: 5/6/2013 End: 5/6/2013
Collection Time Start: 13:21 End: 16:21
Sample Number: 0506201306-04
Sample Type: Composite
Matrix: Surface Water

Analysis	Result	Units	QL	Analysis Date	Analysis Time	Analyst	Method
BOD5	5	mg/L	5	05/07/13	09:06	LB/LW	SM 5210 B
Total Suspended Solids	44.3	mg/L	1	05/07/13	10:15	LW	SM 2540 D

Sample Description: Outfall 009
Collection Date Start: 5/6/2013 End: 5/6/2013
Collection Time Start: 13:21 End: 16:21
Sample Number: 0506201306-05
Sample Type: Composite
Matrix: Surface Water

Analysis	Result	Units	QL	Analysis Date	Analysis Time	Analyst	Method
Total Kjeldahl Nitrogen	1.1	mg/L	1	05/07/13	08:11	LB	SM 4500-NH3 D
Total Phosphorus	0.26	mg/L	0.05	05/07/13	13:50	LW	SM 4500-P E

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations."

Lisa Workman 05/12/13
Laboratory Supervisor / Analyst

"I certify that the aforementioned data has been evaluated using reasonable and accepted Quality Assurance and Control procedures and methods including, where necessary, discussion with the Supervisor directly responsible for the data and / or the individuals actually completing the necessary procedures to produce the data. By signature, this data meets the established criteria for Quality Assurance and Control review."

Janet Wilson 05-13-13
Quality Assurance Control Coordinator

RECEIVED
MAY 21 2013
CHA Consulting, Inc.

WESTERN VIRGINIA WATER AUTHORITY

Roanoke Regional Water Pollution Control Plant Laboratory
1502 Brownlee Avenue, SE Roanoke, Virginia 24014
Virginia Lab ID: 450094 EPA Lab ID: VA01008

Roanoke Regional Water Pollution Control Plant
1502 Brownlee Avenue, SE
Roanoke, VA 24014

Analytical Report Date: 5/12/2013
Sample Order ID: 0506201306
Sample Received: 5/6/2013

Sample Description: Outfall 009
Collection Date Start: 5/6/2013 End:
Collection Time Start: 13:21 End:

Sample Number: 0506201306-01
Sample Type: Grab
Matrix: Surface Water

Analysis	Result	Units	QL	Analysis Date	Analysis Time	Analyst	Method
BOD5 (Comp.)	ND	mg/L	5	05/07/13	09:06	LB/LW	SM 5210 B
pH (Grab)	7.4	SU		05/06/13	13:32	LW	SM 4500-H+B
Total Residual Chlorine (grab)	ND	mg/L	0.1	05/06/13	13:33	LW	SM 4500-Cl G
Total Suspended Solids (Comp.)	3.4	mg/L	1	05/07/13	10:15	LW	SM 2540 D

Sample Description: Outfall 009
Collection Date Start: 5/6/2013 End:
Collection Time Start: 13:50 End:

Sample Number: 0506201306-02
Sample Type: Grab
Matrix: Surface Water

Analysis	Result	Units	QL	Analysis Date	Analysis Time	Analyst	Method
Total Kjeldahl Nitrogen (Comp)	1.1	mg/L	1	05/07/13	08:11	LB	SM 4500-NH3 D
Total Phosphorus (Comp)	0.14	mg/L	0.05	05/07/13	13:50	LW	SM 4500-P E

Sample Description: Outfall 009
Collection Date Start: 5/6/2013 End:
Collection Time Start: 13:50 End:

Sample Number: 0506201306-03
Sample Type: Grab
Matrix: Surface Water

Analysis	Result	Units	QL	Analysis Date	Analysis Time	Analyst	Method
Escherichia coli (grab)	980	N/100mL	1	05/06/13	14:04	LB	Colilert

WESTERN VIRGINIA WATER AUTHORITY

Roanoke Regional Water Pollution Control Plant Laboratory
1502 Brownlee Avenue, SE Roanoke, Virginia 24014
Virginia Lab ID: 450094 EPA Lab ID: VA01008

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations."

Lisa Workman 05/12/13

Laboratory Supervisor / Analyst

"I certify that the aforementioned data has been evaluated using reasonable and accepted Quality Assurance and Control procedures and methods including, where necessary, discussion with the Supervisor directly responsible for the data and / or the individuals actually completing the necessary procedures to produce the data. By signature, this data meets the established criteria for Quality Assurance and Control review."

Janet Wilson 05-13-13

Quality Assurance Control Coordinato

REI Consultants, Inc. - Analytical Report

WO#: 1305792

Date Reported: 5/9/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	5/6/2013 4:21:00 PM
Project:	STORM WATER	**Date Received:**	5/8/2013
Lab ID:	1305792-01A	**Matrix:**	Surface Water
Client Sample ID:	SW009 COMPOSITE	**Site ID:**	OUTFALL 009

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	LW		NA				
Chemical Oxygen Demand		**Method: EPA410.4**					**Analyst: BA**
Chemical Oxygen Demand	24	10	NA		mg/L		5/8/2013 8:30 AM

REI Consultants, Inc. - Analytical Report

WO#: 1305792

Date Reported: 5/9/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	5/6/2013 1:50:00 PM
Project:	STORM WATER	**Date Received:**	5/8/2013
Lab ID:	1305792-02A	**Matrix:**	Surface Water
Client Sample ID:	SW009 GRAB	**Site ID:**	OUTFALL 009

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Field Parameters		**Method: FLD**					**Analyst:**
FieldSampler	LW		NA				
Chemical Oxygen Demand		**Method: EPA410.4**					**Analyst: BA**
Chemical Oxygen Demand	27	10	NA		mg/L		5/8/2013 8:30 AM

REIC

REI Consultants, Inc.
225 Industrial Park Rd
P.O Box 286, Beaver, WV 25813
Phone: 304-255-2500 or 800-999-0105
FAX: 304-255-2572
e-mail: rlabs@reiclabs.com

CHAIN OF CUSTODY RECORD NO.

CLIENT:
ADDRESS:
CITY/STATE/ZIP:
BILL TO:
CITY/STATE/ZIP:
PURCHASE ORDER #
QUOTE #

CONTACT PERSON:
TELEPHONE #:
FAX #:
E-MAIL ADDRESS:
SITE ID & STATE:
PROJECT ID:
SAMPLER

SAMPLE LOG AND ANALYSIS REQUEST

TURNAROUND TIME REQUIREMENTS
REGULAR
RUSH
5-Day
3-Day
2-Day
1 Day

PRESERVATIVES
0 No Preservative
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA

PRESERVATIVE CODES

SAMPLE ID	NO. & TYPE OF CONTAINERS	SAMPLING DATE / TIME	SAMPLE MATRIX (GRAB / COMP)	COMMENTS

FAX Results

Email Results

CHAIN OF CUSTODY RECORD NO. 2824

REI Consultants, Inc.
225 Industrial Park Rd.
P.O. Box 286, Beaver, WV 25813
Phone: 304-255-2500 or 800-999-0105
FAX: 304-255-2572
e-mail: rlabs@reiclabs.com

CLIENT: _____ CONTACT PERSON: _____

ADDRESS: _____ TELEPHONE #: _____

CITY/STATE/ZIP: _____ FAX #: _____

BILL TO: _____ E-MAIL ADDRESS: _____

CITY/STATE/ZIP: _____ SITE ID & STATE: _____

PURCHASE ORDER # _____ PROJECT ID: _____

QUOTE # _____ SAMPLER: _____

SAMPLE LOG AND ANALYSIS REQUEST

TURNAROUND TIME REQUIREMENTS
REGULAR: ___
*RUSH: ___ 5-Day ___ 3-Day ___ 2-Day ___ 1-Day
*Rush work needs prior Laboratory approval and will include surcharges

PRESERVATIVES
0 No Preservative
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA

PRESERVATIVE CODES — NOTE PRESERVATIVES →

SAMPLE ID	NO. & TYPE OF CONTAINERS	SAMPLING DATE / TIME	MATRIX	SAMPLE COMP / GRAB	ANALYSIS REQUESTED & METHOD	COMMENTS

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
			5/31/13		5/31/13		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Temperature Upon Arrival °C		☐ FAX Results	☐ Email Results

CHAIN OF CUSTODY RECORD

Western Virginia Water Authority
Drinking Water Quality Laboratory
6200 W. Main St.
Salem, Va. 24153
PHONE: 540-380-2687
FAX: 540-380-4857
E-MAIL: cheryl.brewer@westernvawater.org

CLIENT: Pretreatment Coordinator
ADDRESS: 1502 Brownlee Avenue, SE
CITY/STATE/ZIP: Roanoke, VA 24014
CONTACT PERSON: Janis Richardson

TELEPHONE #: 853-1517
FAX #:
E-MAIL ADDRESS:
SAMPLER: Lisa Workman

SAMPLE TRANSPORTED ON ICE YES ✓ NO ___

LAB ID # (Lab Use Only)	Sample Location	Date/Time Collected	Container Type	Preservative	Sample Composite = C Grab = G	Number of Containers	Analyses Required	
131238	SW 009	05/06/13 1350	Plastic	H_2SO_4	Grab	1	Nirate + Nitrite	pH<2 ✓
131239	SW 009	05/06/13 1321-1621	Plastic	H_2SO_4	Composite	1	Nirate + Nitrite	pH<2 ✓

Sampler (s): (Signature) Lisa Workman, Custody Seal

Relinquished by: (Signature) Lisa Workman Date/Time: 05/08/13 0955 Received by: (Signature) [signature] Date/Time: 5/8/13 0955

Relinquished by: (Signature) ___ Date/Time: ___ Received by: (Signature) ___ Date/Time: ___

Relinquished by: (Signature) ___ Date/Time: ___ Received by: (Signature) ___ Date/Time: ___

COMMENTS: ___

REI Consultants, Inc. - Case Narrative

WO#: 1305792

Date Reported: 5/9/2013

Client: WESTERN VA WATER WWTP

Project: STORM WATER

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

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Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
*: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460149, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094

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Website: www.reiclabs.com

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101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.248.0183

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Wednesday, August 14, 2013

Ms. Janis Richardson
WESTERN VA WATER WWTP
1502 BROWNLEE AV SE
ROANOKE, VA 24014

TEL: (540) 853-1517
FAX: (540) 853-1307

RE: SW009

Work Order #: 1308B71

Dear Ms. Janis Richardson:

REI Consultants, Inc. received 1 sample(s) on 8/12/2013 for the analyses presented in the following report.

Sincerely,

Joy Castle

Project Manager

WESTERN VIRGINIA
WATER AUTHORITY

Drinking Water Quality Laboratory
EPA ID # 01069; Virginia ID # 00279
6200 West Main Street
Salem, VA 24153

Client:	Pretreatment Coordinator	Collection Date:	5/6/2013
Client Sample ID:	SW009	Collection Time:	13:50
	Grab SW 05/22/13	Matrix:	SW

Method: NO3 - EPA 353.2 Nitrate **Analyst:** SW

Lab ID:	Analysis	Units	Result	MDL	PQL	Qual.	Date/Time
131238	Nitrate-Nitrite	mg/L	0.58	0.02	0.02		5-17-13/15:15

Key: MCL Maximum Contaminant Level
MDL Minimum Detection Limit
NA Not Applicable
ND Not Detected at the PQL or MDL
PQL Practical Quantitation Limit

B Analyte found in reagent blank. Indicates possible reagent or background contamination
E Reported value exceeded calibration range
J Reported value is less than PQL but greater than MDL
H Holding time exceeded
PND Precision not determined
RND Recovery not determined
X Value exceeds MCL or Regulatory level

All tests were performed according to Standard Methods for the Examination of Water and Wastewater 20th Edition and EPA Methods for the Chemical Analysis of Water and Wastewater.

Quality Assurance Officer: Cheryl L. Brewer

WESTERN VIRGINIA
WATER AUTHORITY
Drinking Water Quality Laboratory
EPA ID # 01069; Virginia ID # 00279
6200 West Main Street
Salem, VA 24153

Client:	Pretreatment Coordinator	Collection Date:	5/6/2013
Client Sample ID:	SW009	Collection Time:	13:21-16:21
	Composite dw 05/22/13	Matrix:	SW

Method: NO3 - EPA 353.2 Nitrate **Analyst:** SW

Lab ID:	Analysis	Units	Result	MDL	PQL	Qual.	Date/Time
131239	Nitrate-Nitrite	mg/L	0.50	0.02	0.02		5-17-13/15:16

Key: MCL Maximum Contaminant Level
MDL Minimum Detection Limit
NA Not Applicable
ND Not Detected at the PQL or MDL
PQL Practical Quantitation Limit

B Analyte found in reagent blank. Indicates possible reagent or background contamination
E Reported value exceeded calibration range
J Reported value is less than PQL but greater than MDL
H Holding time exceeded
PND Precision not determined
RND Recovery not determined
X Value exceeds MCL or Regulatory level

All tests were performed according to Standard Methods for the Examination of Water and Wastewater 20th Edition and EPA Methods for the Chemical Analysis of Water and Wastewater.

Quality Assurance Officer: Cheryl L. Brewer

REI Consultants, Inc. - Analytical Report

WO#: 1308B71

Date Reported: 8/14/2013

Client:	WESTERN VA WATER WWTP	**Collection Date:**	8/9/2013 3:05:00 PM
Project:	SW009	**Date Received:**	8/12/2013
Lab ID:	1308B71-01A	**Matrix:**	Surface Water
Client Sample ID:	SW009	**Site ID:**	

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
OIL and GREASE		**Method: EPA1664A**					**Analyst: JJ**
Oil & Grease	ND	2.0	5.0	200		mg/L	8/13/2013 8:45 AM

REI Consultants, Inc. - Case Narrative

WO#: 1308B71

Date Reported: 8/14/2013

Client: WESTERN VA WATER WWTP

Project: SW009

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

Please note if the sample collection time is not provided on the Chain of Custody, the default recording will be 0:00:00. This may cause some tests to be apparently analyzed out of hold.

All tests performed by REIC Service Centers are designated by an annotation on the test code. All other tests were performed by REIC's Main Laboratory in Beaver, WV.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
*: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460149, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094; WV 389
Morgantown, WV: WVDHHR 003112M, WVDEP 387

REI Consultants, Inc. - QC SUMMARY REPORT

WO 1308B71

Date Reported: 8/14/2013

Client: WESTERN VA WATER WWTP

Project: SW009 **Test Code:** 1664_HEM

Sample ID:	MB-R309472	Samp Type:	MBLK	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	309472	
Client ID:	PBW	Batch ID:	R309472	TestNo:	EPA1664A			Analysis Date:	8/13/2013	SeqNo:	4627312	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		ND	5.0									

Sample ID:	LCS-R309472	Samp Type:	LCS	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	309472	
Client ID:	LCSW	Batch ID:	R309472	TestNo:	EPA1664A			Analysis Date:	8/13/2013	SeqNo:	4627313	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		35.4	5.0	40.0	0	88.5	77.9	114.1				

Sample ID:	R309472LCSD	Samp Type:	LCSD	Test Code:	1664_HEM	Units:	mg/L	Prep Date:		RunNo:	309472	
Client ID:	LCSS02	Batch ID:	R309472	TestNo:	EPA1664A			Analysis Date:	8/13/2013	SeqNo:	4627314	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oil & Grease		38.7	5.0	40.0	0	96.8	77.9	114.1	35.4	8.9	20	

4:05922

CHAIN OF CUSTODY RECORD

REIC
Research Environmental & Industrial Consultants, Inc.
MAIN LABORATORY & CORPORATE HEADQUARTERS:
P.O. Box 286 • 225 Industrial Park Rd, Beaver, WV 25813
800-999-0105 • 304-255-2500 • www.reiclabs.com

MID-OHIO VALLEY Service Center
101 17th Street
Ashland, KY 41101
606-393-5027

SHENANDOAH Service Center
1557 Commerce Rd., Ste 201
Verona, VA 24482
540-248-0183

ROANOKE Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

MORGANTOWN Service Center
16 Commerce Drive
Westover, WV 26501
304-241-5861

Client: Western Virginia Water PO #
Contact Person Jamie Richardson Phone
QUOTE # Fax: Email:
Address 1502 Brownlee Ave City Roanoke State Va Zip 24014
Billing Address (if different)
City State Zip
Site ID & State Project ID Sampler C. Holland

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME
[X] NORMAL
RUSH TURNAROUND [ ] 5 DAY [ ] 3 DAY [ ] 2 DAY [ ] 1 DAY
*Rush work needs prior laboratory approval and will incur additional charges

ANALYSIS & METHOD REQUESTED: O+G

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab
SW009	1	8.9.13 1505	SW	Grab

ENTER PRESERVATIVE CODE:
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA
8 Ascorbic Acid

COMMENTS:

All analytical requests are subject to REIC's Standard Terms and Conditions.

Temperature at arrival 3 °C ICED? Y X N
Containers provided by: [X] REIC [ ] Client

1	8.9.13 1515	2	Jamie Richardson	8.9.13	FAX RESULTS [ ] EMAIL RESULTS [ ]
	8.12.13 7:50			8.12.13 0824	

COC-NCR-050213